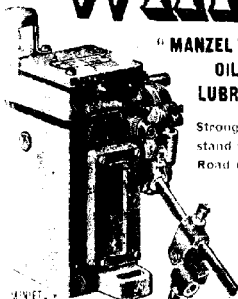
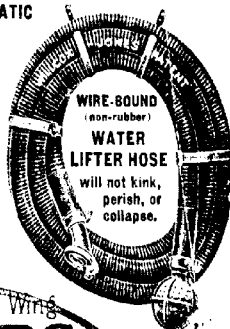


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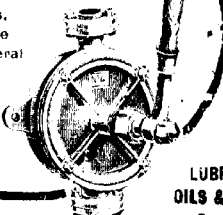
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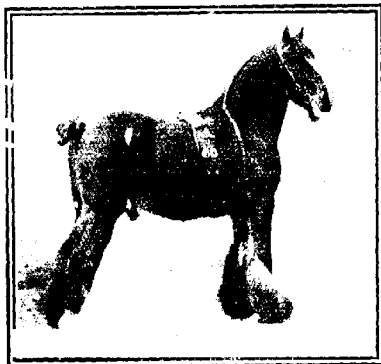


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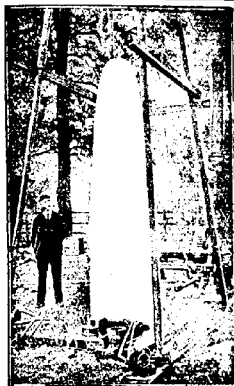
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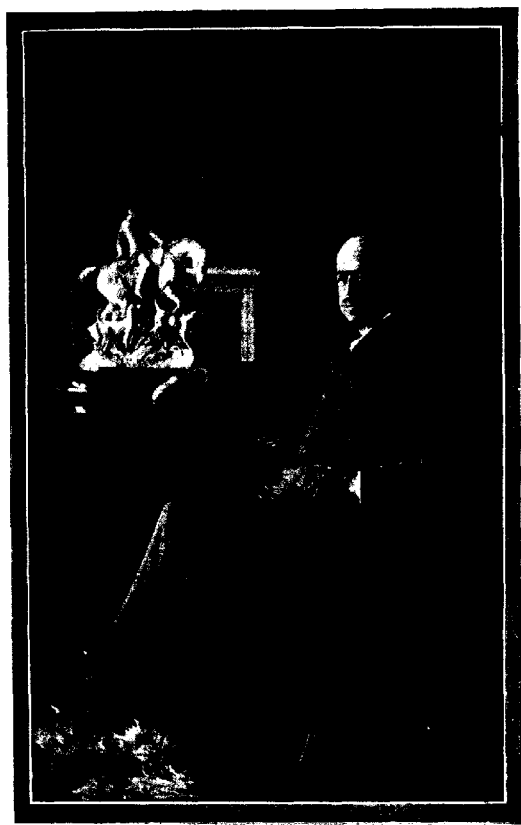


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THE
JOURNAL
OF THE
ROYAL AGRICULTURAL SOCIETY
OF ENGLAND.

VOLUME 75.

(BEING THE SEVENTY-FIFTH VOLUME ISSUED SINCE THE
FIRST PUBLICATION OF THE JOURNAL IN 1869.)

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JOURNAL
OF THE
ROYAL AGRICULTURAL SOCIETY
OF ENGLAND.

VILLAGE CLUBS AND ASSOCIATIONS.

INTRODUCTORY.

ENGLISH social history affords many examples in early times of village organisations quite unconnected with trade or similar interests. The villages of England in the middle ages were filled with guilds or fraternities, religious in origin, which were constituted in association with the parish church, usually for the maintenance of a light or an altar to some particular saint, but which had, or at all events developed, as part of their purpose, the social well-being of their members.

For the most part, evidence of the existence of guilds in rural parishes is contained in deeds concerning the transference of lands. Thus, "a lease of land in Brailes granted by the Masters and Brethren of the Guild of our Blessed Lady in the Church at Brailes to Richard Ryley, 1537," exists, and there are other examples.¹

These village guilds were not confined to one craft or social class, nor even to one sex. It has been remarked that they were primarily religious institutions, but as mediæval religion found its finest expression in the development of a social conscience, and all the political and social activities of the village were carried on in the vestry, or the church house, this term cannot be narrowly interpreted. They were in reality primarily fellowship associations, combining in their objects the material and moral welfare of their members and sometimes of the whole parish.

All the guilds appear to have combined religious and social objects. Funds were provided for candles to burn before the patron saint of the guild, for payments for masses, either for the dead or special celebrations for the guild, for the provision

¹ Birmingham Municipal Library, MSS. Collections.

of altar cloths or other utensils for these special celebrations, and for burial.¹ As the guild spirit grew other objects were added, and the guilds developed into associations for mutual assistance and protection, providing funds for apprenticeships, for dowries, for aid in sickness, disability, in case of loss by robbery, storm or fire, and for assistance in lawsuits. Many gradually collected capital in money, cattle, land, and houses, with which to pursue these objects, with the provision of a loan fund for members. Few guilds, if any, pursued all these objects, but most of them gave donations in time of sickness or distress and provided loans for unfortunate members. Thus, at East Wyck, in Norfolk, the existence of a guild in the time of Richard II. is recorded which, besides providing wax for the light of St. John in the church, made gifts of bread, beer, and meat to sick members. Another Norfolk guild, at Cranbourne, which undertook similar duties in the church, was also a burial club, providing burial for its deceased members, at which all those living were required to assist under penalty of a fine of a penny to the funds of the guild, for absence.¹

Funds were collected by means of small subscriptions, but mostly by gift and bequest (*vide* wills of the period), and once obtained, they were carefully husbanded. One of the most common investments among guilds was in cattle. Sometimes these were grazed on the guild lands (*vide Archaeologia Cantiana* III., 249), which were in common, amongst those of other owners, or they were put out with farmers on agreement. It appears, too, that occasionally the guild provided the parish bull, in fact, wherever the manorial system failed to reach completeness, as it did in many parishes, the villagers were still organised for economic purposes. At Aston and Cote, Oxfordshire, there existed a corporation known as *The Sixteens*, a body of small landowners, who constituted the executive of the village government in the absence of manorial organisation, and who were bound to provide four two-year-old bulls every season to run on the common pasture. In several other parishes there is evidence of the provision of parish bulls by officials acting under the parish vestry. In fact, there is good reason to believe that as the manorial system became disorganised during the fifteenth century, the guilds played much the same part in village government as that borne by the merchant guilds in the towns.

One of the most beneficial results of guild activities was the provision of meeting places and the organisation of parish feasts. In early days all parishes held their meetings, and often their feasts, in the church or in the vestry, and some

¹ Toulmin Smith. *Early English Guilds*. (E. E. Text Society.)

continued to do so till a very late period ; but as doubts of the propriety of these proceedings came to be felt by the clergy, the guild provided a substitute for the vestry. The halls used for guild meetings and parish feasts were sometimes known as guild-houses, but probably more commonly as church houses. "In most parishes a house was formerly held by the parish, usually called the Church House. In and around this house festive gatherings and public games were periodically held, which did very much to promote good neighbourliness and the maintenance of kindly relations. At these gatherings, collections were generally made, which went to the common stock of the parish, and were applied to all purposes of a secular nature."

The spirit of all village associations, which were not confined to any class by nature or rule, found its expression in these early guilds. The results were that mutual insurance and protection were provided for members, communal action was instituted when it was more economical or more conducive to social welfare than individual effort, and more important than all, the villagers voluntarily joined their personalities in a corporate personality, and by mutual control and mutual action, each increased his liberty and power.

VILLAGE FRIENDLY SOCIETIES.

The Church Guilds were swept away by the Reformation, and between the opening of the seventeenth century and 1750 little is known of village organisations. But there is reason to believe that all the functions of the village guilds did not disappear completely at the time that the craft guilds were dissolved, and although their religious observances ceased, and their property was mostly confiscated, it may, in some cases, have been assigned for the charitable uses for which it had been given or bequeathed, under another form of administration. Village associations doubtless suffered from the growth of the "police state" in England during the early Stuart period. Voluntary association for mutual help and insurance was superseded by judicial administration of the Poor Law. Still some parishes, as corporations, carried on the work of the earlier voluntary associations. The parish records of Steeple Ashton, in Wiltshire, for example, show clearly that the principles of the guilds in regard to the weak or unfortunate were still followed. From 1603 to 1664 these records contain evidence of the action of the parish as a loan society, and the rules governing loans were almost identical with those of the guilds on the one hand and of modern village credit societies on the other. Here are samples :—

¹ Toulmin Smith, *The Parish*, 497.

Anno Domini, 1603, Jacobi 1^o, oppon ye Feast of St. Stephen, was Read
his account:—

Received of	Walter Marks, for ye use of 10 ^l . 20s.	
	George White	4 ^l . 8s.
	William Hamock	5 ^l . 10s.
	Georg Shord	40s. 4s.
	Thomas Langfield	40s. 4s.
	Thomas Symmes	40s. 4s.

From 1605 to 1607 Georg Shord failed to pay the interest due, so in the latter year appears this minute: "At this vestrie John Evance, who, together with John Marks, was in bond for Georg Shord, brought in 20s., the one-half of the money, soe yt, by ye general consent of ye whole vestrie, he was released from his bond." And in 1608 John Marks took "ye 20s. for which he was in bond in ye behalf of Georg Shord, upon himself, to return in ye principal at ye next vestry." These bondsmen were not well-to-do patrons of their fellows, for Marks himself was a borrower in 1609. This parish had a capital sum of about 50^l., which it applied to loan purposes. The disposition of the interest earned, namely one half to the increase of capital and the other half to the relief of the poor, is interesting in view of the fact that modern credit societies cannot use their profit except to create a reserve fund or for some public purpose of general utility to the locality.

The Civil War and the Revolution of 1688 seem to have checked, for a time, the development of village associations, but after the middle of the eighteenth century the villages reorganised them for mutual protection and assurance. The Annual Report of the Registrar of Friendly Societies, 1883, contains a statement by J. M. Ludlow to the effect that there were then seventy-seven English Friendly Societies which had been in existence for a century or more. The earliest of these dated from 1687 and the latest from 1780. Corresponding with the growth of the friendly society movement in the towns, from the beginning of the eighteenth century, there was a similar movement in country villages. Although no organic connection between the village guilds and friendly societies can be traced the methods of organisation and the objects are very similar. Both guild and friendly society had its procession, with a special service at church and its feast, both had a rule that disputes between members of the society, or between a member and the society, especially with regard to their various interests in the society, should be submitted to arbitration; both started on a basis of moral endeavour and good-fellowship. Further, as in the case of the guild, the friendly society subscriptions were at first informal, uncontrolled by rule, and the chief benefit was derived by the heirs on the death of a member. The chief

difference between the two associations lay in their knowledge of the principles of insurance, and, consequently, the friendly societies soon learned to arrange a scale of premiums and benefits. Incidentally, too, the church house as a meeting place gave way to the public house.

SICK AND BURIAL CLUBS.

There are few villages in England in which men have not formed a voluntary association for protecting of themselves or their families against sickness or death. The Editor of *The Labourer's Friend*, the organ of the Labourer's Friend Society which did good work in promoting self-help and education amongst villagers about 1830, found that in 1832 there were about 9,000 village clubs, and some 8,000 of them met in public houses. Whilst these associations have never been confined to any one social class by theory or rule, their activities have undoubtedly been more appreciated by the poorer strata of village society because of the nature and extent of the benefits offered. At the same time their membership has never been so completely confined to the "labouring" classes as has sometimes been imagined. A village society, typical of the better sort, which have maintained their funds at a proper level for a century or more, is "The Yeomen's, Tradesmen's and Agricultural Labourers' Friendly Society," at Stratton, in Cornwall. This society has always been patronised by the classes named since its foundation in 1808, and evidence as to its position is provided by the fact that with a membership of 108, the last valuation showed it possessed a surplus of 383*l*. The Hitchin Friendly Institution, founded in 1827, had 342 members in 1882, of whom one-third were "tradesmen," one-third "workmen," and one-third "mechanics, apprentices, and women" (70).

The history of some of these clubs is notorious; their financial basis was often rotten, their system of management poor, and the results of the two were constantly disastrous. They met in public houses or schools, and the fate of some of them could have been predicted from a knowledge of the meeting place and the influences which prevailed with the members. But while the fact of the many failures and disappointments cannot be overlooked, no one can fail to admire the glorious endeavour behind the organisation of these societies; and when it is remembered that the village labourer had no surplus for insurance, his wages being barely sufficient for the immediate needs of his family, and that he received only a minimum of education till the last quarter of the nineteenth century, the work of these village societies appears remarkable for its success rather than for its failure.

Registered and unregistered sick and benefit clubs confined to one village, or to one or two hamlets, were in the process of formation and dissolution up to 1910. The vitality of the idea of mutual assurance amongst the inhabitants of a small rural area has been amazing, and the vitality of many of the clubs, considering the small field for the calculation of average risk, cannot fail to arouse surprise in candid students. Critics of small village clubs, especially the friends of the large "affiliated orders" of friendly societies have never failed to point to the poor financial standing of these societies. Some half-dozen registered clubs were dissolved in 1910. On the other hand the Launton, Oxon., had a deficiency of 808*l.* in 1904, but by the next valuation in 1909, this was converted into a surplus of 242*l.* And amongst larger societies the South Bucks Friendly Society, and the Stoke and Melford Union Association are notable for the accumulation of surplus funds.¹ Also some village societies have been more progressive than even the great "affiliated orders." They have instituted compulsory superannuation at sixty-five years of age, and arranged contributions accordingly—a reform much needed throughout the whole friendly society movement. The Stoneleigh and Ashow (Warwickshire), Kempston (Bedford), Wickambrook (Suffolk), and the Hitchin societies are notable in this respect. Further, it is well-known in the friendly society world that villagers are "better lives" for insurance purposes than industrial workers. Recent evidence from several agricultural counties proves this is as true to-day as when the Manchester Unity drew up its first actuarial tables in 1844. The sickness rates for all friendly societies compared with a group of village societies show the following differences:—

COUNTY OF	No. of Societies	No. of Members	Cost of Sickness		Less than Expected
			Expected	Actual	
Bucks	6	1,209	£ 4,490	£ 3,837	14·54%
Oxford	8	1,096	5,401	5,010	7·24%
Suffolk	2	1,763	4,678	4,366	6·67%

And it might be maintained that the failure of many village clubs is not so much due to inherent weakness of organisation as to other causes, especially the small incomes of members. The financial position of a group of societies in a typical agricultural county may be given.*

¹ A surplus is any sum left after "the estimated present value of benefits," and the "estimated present value of contributions," amount of accumulated funds, and the rate of interest have been balanced against each other.

Village Clubs and Associations.

Rural Benefit Societies: Membership and Financial Position. Oxfordshire, 1909.

	Date of Registration	Members	Amount of Funds	Other Assets	Estimated Surplus	Estimated Deficiency
			£	£	£	£
Islip Friendly Institution	1843	71	332	81	—	608
Adderbury Fountain of Friendship	1854	45	583	—	59	—
Chipping Norton United Provident Society ...	1851	208	179	100	—	2,283
Stratton Audley Benefit Friendly Society ...	1862	70	1,070	—	—	15
Launton Provident Society	1863	136	1,293	—	242	—
Shutford Friendly Society	1864	23	349	—	142	—
North Leigh Friendly Benefit Society ...	1867	63	223	—	—	208
Woodstock United Provident Friendly Society	1871	460	6,674	—	—	764
Hethe Benefit Society ...	1880	71	500	—	—	480
Cropley United Temperance Friendly Society	1888	27	147	—	—	369
Eynsham Permanent Benefit Society ...	1891	64	410	—	—	374

The number of village clubs prior to the passing of the Insurance Act is unknown, but there were still numerous registered societies restricted as to membership to one village or to a small rural district before 1910, and probably the number of unregistered societies was very much greater. Their objects were similar to those of the better known affiliated orders of friendly societies. Under the National Health Insurance Act, 1910, many of them have been closed, and the work they have done is now carried on by one or other of the great organisations anxious to enlist the healthy country worker. The effect is to deprive the rural labourer of a certain extra benefit which should accrue to him, under the Act, from the general healthiness of his life and surroundings, whilst adding proportionately to the advantages enjoyed by his fellow members in the towns. (See figures given on p. 6 for expected and actual sickness in country clubs.) This is not the place to discuss the Insurance Act and its effects on village clubs, but it may be noted that in some parts steps were taken to preserve the village societies, and to secure to their members the maximum benefits of the Act, by the formation of county societies which were to link them up for the purposes of valuation under the Act. Thus, in Lincolnshire, the Rural Workers' Insurance Society was registered, and every effort was made to secure the continuance of the village clubs of the county by affiliating them with it.

The village women's friendly society movement must not be overlooked. There have been many obscure societies for insuring women against sickness, and their record of failure is somewhat worse than that of those organised for men, doubtless due to the fact that a much smaller number were registered and placed on a sound basis of management and finance. But a few registered societies have accomplished their objects. The Baschurch (Shropshire) Female Friendly Society, founded in 1802, had eighty-seven members and a surplus of £4811: over estimated liabilities in 1909. The Mitcham (Surrey) Friendly Society for Women had fifty-four members and an estimated surplus of £3001 in the same year.

COUNTY SOCIETIES.

Village associations might be classified as patronised or non-patronised as the idea of or impetus for organisation originated amongst the higher or lower social classes of the inhabitants of the countryside. The village clubs would be almost evenly divided between the two classes, although most of the earliest would be non-patronised. But the county societies would all be placed in the first class. They were somewhat centralised bodies, organised for activities within a county, a poor law union, a hundred, or some such division. Branches were formed in outlying villages, mostly with some local autonomy, the amount varying in different societies. In some counties the branches had practically no power, being merely collecting and paying stations, but in no case did they possess as much power as the autonomous village clubs, or even as the branches of the great affiliated societies.

The original impetus for the formation of several of these societies came from the county justices sitting in Quarter Sessions, and they were intended to be a substitute for relief from the poor rates. During the period 1790—1832 many proposals for the establishment of compulsory parochial or national benefit societies were made in parliament and in the country, and the one practical outcome was the formation of the county societies. During this period the justices in Quarter Sessions became conversant with friendly society rules and methods of organisation when acting in their official capacity as registrars under the Friendly Society Act of 1793.

The village societies were generally managed by a committee of "benefit" members, sometimes under the presidency of the vicar or a large farmer, with the local schoolmaster or a tradesman as secretary. The trustee and treasurer were generally well-to-do people of the neighbourhood, and whether the committee were elected or served by rotation the society was truly self-governed. But many of the county societies were governed

entirely by the non-benefit members who had been responsible for their establishment. The Wiltshire Society, which was one of the best known, was governed entirely by honorary members till 1840, when the election of three members to each branch committee was allowed, though even then all honorary members of the branch were entitled to be members of its committee.

In 1874 there were eleven societies which could properly be described as "county societies." The membership numbered 29,036, and the accumulated funds amounted to 221,955*l*. If several societies whose operations were confined to a definite portion of a county be included this class of society had a membership of about 40,000. They were largely confined to the south-eastern, southern, and south-western counties. The Wiltshire society, which was somewhat typical, had 102 branches, 4,854 benefit and 821 honorary members in 1882. Since then the history of the societies has been extremely varied. Some have disappeared, others have been transformed, and others still remain. The transformation has been generally a movement to increase the amount of self-government on behalf of the ordinary or benefit members.

They were generally held to possess a better system of management and finance than the village clubs, and for this reason they had many warm advocates. But their finances were not always so good as they appeared to be, and they certainly did not give the villagers the same amount of self-discipline and training in business and mutual action as was provided by either the registered village club or a branch of one of the larger orders.

In this connection it must not be forgotten that the great affiliated orders have many successful branches in most villages, and since 1880 these have been on the increase. Amongst these orders are the "Foresters," the "Oddfellows," the "Druids," and the "Shepherds."¹ These societies provide members with a full measure of self-government, while their financial system is founded on recognised actuarial data.

It is worthy of notice that nearly all rural friendly societies have suffered because of the low rate of interest earned by their capital. The actual rate received is often not more than 2 per cent., whilst it sometimes falls below this figure; and is generally less than 3 per cent. The fall in the value of land in the latter part of the nineteenth century frequently accounts for this. Some of the capital of rural sick clubs appears to be illegally invested, *i.e.* on personal security. This is probably due to two reasons: a desire to help members who are struggling to improve their positions, and a desire to earn

¹ The writer himself has been an officer in a village court of Foresters consisting of about 100 members, about three-quarters of whom are labourers.

higher rates of interest. But it must be stated to the credit of village sick clubs, especially the branches of the large affiliated orders, that by a system of mortgages they have helped many members to buy houses and small pieces of land, and have thus maintained the "credit society" tradition of the village guild.

The county societies and some of the branches of the national societies have also continued the tradition of the village festival, with a procession, a feast, and a social fête. The wisdom of organising these feasts and their value has often been questioned, but most unprejudiced and broadminded persons will agree that anything which will add gaiety to rural life, and promote good fellowship, should be encouraged in every possible way.

DEPOSIT AND BUILDING SOCIETIES.

The well-known sick and dividing society, often called a sick and dividend club, has always existed in some English villages, generally in connection with a public-house or a workman's club. Sometimes it took the place of a permanent sick benefit society, but quite often it existed alongside more permanent societies of this character. Such associations require no comment, except that their history shows a remarkable degree of honesty amongst secretaries and treasurers, and illustrates the extreme confidence of the village workmen in his fellows. But another form of association of this type is not nearly so well known. Tontines, a form of semi-permanent dividing society, in which there is a gambling chance of considerable gains accruing to some of the members, have been much more common amongst agricultural labourers than might be expected.¹

These societies take regular subscriptions from their members, and make periodical divisions of part of their funds, retaining the remainder for future division amongst surviving members. They were common amongst the industrial workers in the north of England in the early part of the nineteenth century, and later spread into agricultural districts. During the last quarter of the century they were common in the villages of the southern and eastern counties.

The operations of these two types of societies were generally confined to one village, but a larger type of dividing society was also developed, often in connection with the county benefit societies. Prominent among these was the Wiltshire society

¹ TONTINE.—A kind of life annuity, characterised by a community of interest and equality of profit, with the right of survivorship attached, the profit increasing to each survivor as the number diminishes, until the final survivor takes the whole.

already mentioned, which had a central deposit branch, the Hampshire Friendly Society, and the Surrey Deposit Friendly Society. The principle of these clubs was that the limits of benefits were fixed by the sum accumulated by the contributions of each individual member. It has truly been said of these that they are savings banks rather than friendly societies, and primarily individual, not social. They received a good deal of support from the country clergy, and in some cases they did much good work; but generally speaking their economic and social value was much lower than that of the better class of village sick clubs or the county sick clubs. One village dividing society is worthy of honourable mention, namely, Abbots Ann (Dorset) Provident Society, which was "a savings bank, a friendly society, and a medical club all in one."

The great building societies have confined their activities almost exclusively to industrial areas; but a few small societies have been established, and have done good work in large villages in purely agricultural districts. These societies collect subscriptions from members, and after a certain sum has been accumulated it is returned to them, accompanied sometimes by an additional loan, which must be invested in real estate, generally, as the name implies, in building a house for the member's family. The society takes a mortgage of the site and the prospective building. By means of further subscriptions the mortgage debt is repaid, and the member possesses sole interest in the property. For these purposes a society sometimes buys land and develops it for building purposes. Types of most building societies may be found in several counties, and one or two examples may be given. In Berkshire the Ascot and District (838th Starr-Bowkett) Society has 262 members. The record of its business for one year is as follows:—

	£
Total received	1,899
Amount allowed on mortgage	927
<i>Liabilities:</i>	
To shareholders	7,914
Depositors and other creditors	18
Undivided profit	1,331
<i>Assets:</i>	
Balance due on mortgage securities	8,332
Other assets	984

This society has had a fairly long lease of life, having been incorporated in 1887.

A Warwickshire society, the Southam Permanent Benefit, founded forty-two years ago and incorporated in 1900, has 194 members. The amount of its business is similar to that of the foregoing society:—

Village Clubs and Associations.

Receipts	£
Amount admitted on mortgage	1,475
	440
<i>Liabilities:</i>	
To holders of shares	7,227
Undivided profit	278
<i>Assets:</i>	
Balance due on mortgage securities	6,494
Other assets	1,011

A society at Deddington, Oxon, indicates the fate of some of these village building societies. Incorporated in 1888 it had a number of members for many years, but in 1910 only one remained, and the receipts amounted to 5*l*. Fortunately the liabilities only amount to 61*l*., while the assets reach a total of 185*l*.

CATTLE INSURANCE SOCIETIES.

When the reorganisation of village associations began in the eighteenth century, after the period of inactivity following the break-up of the guilds, there was a strong development of specialisation. Instead of the village guild, in which all persons of good character without restriction of trade or class were included, combining many objects in its general purpose of helpfulness, small societies were organised for definite purposes, and attempts were made to regularise their proceedings. Calculations of risks or necessities were made, and subscriptions were fixed accordingly, to provide the necessary income. This may be regarded as a definite advance.

Most important are the numerous pig and cow clubs scattered over England.

1. PIG CLUBS.

There are some 1,080 pig insurance societies in England and Wales, scattered over 28 counties, only about 30 of them being registered. A large number of these clubs were formed in the seventies and eighties of the last century, 42 of them before 1860, whilst the oldest, that at Whitwell, in Derbyshire, was founded in 1833. Since 1900, 230 clubs have been started. The statistics of 1,027 of these societies show that they have 37,848 members, with 63,558 pigs insured, and assets totalling up to 32,656*l*. The most important fact in the history of these clubs is that the villagers conceived the idea of mutual protection from the ravages of disease amongst pigs and organised the insurance against risks frequently without outside inspiration or assistance. So far as is known no influential persons systematically advocated the promotion of these clubs, and no society was ever formed to advocate, organise, or consolidate them. They have grown up in the obscurity of each little

village, absolutely unheard-of unless the local papers printed a brief report of their annual dinners, until a great deal of interest was manifested in agricultural co-operation and the Board of Agriculture turned its attention to this indigenous form of rural association. Yet clearly the pig clubs have been at once the most spontaneous and the most numerous of village associations, other than those dealing with human insurance.

The membership of a pig club is usually confined to one village, or to a small clearly defined area surrounding a large parish. It varies considerably in number, the average being about 40, rising to 100 or falling to about 20. As a rule the majority of members are labourers, the others being small tradesmen and small farmers. But a recent development of the pig club at Calne shows that other classes of pig-keepers may avail themselves of the advantages offered by mutual insurance.

Some clubs meet at public houses, others in schools or public rooms. The executive usually consists of a committee of some half-dozen members, including a secretary, a treasurer and a president. The committee is generally elected at the annual meeting of the club, but sometimes the rules provide that all members shall serve on the committee by rotation, or be subject to a fine. Where a club having a number of branches is semi-centralised other arrangements are made. At Kineton, where the kennels of the Warwickshire Hunt are situated, there is a large society with a record of good management. It covers five villages which contain a population of about 2,300. "The number of members is unlimited, but membership is confined to working men—a somewhat indefinite term, as the actual membership shows. Any working man may become a member on the payment of an entrance fee of sixpence and a quarterly subscription of three-pence, payable in advance. The group of members belonging to any particular village is self-contained for certain purposes. Each group elects two representatives to sit on the central committee, and these are responsible for the collection of subscriptions and insurance fees, for the inspection of pigs before insurance, and for the assessment of claims within their own village area. At Kineton, however, the village members appoint six representatives, thus the central committee of the society consists of six members from Kineton and two from each of the other five villages. This committee has control over finances, subject to the rule that the funds shall be deposited in the Post Office Savings Bank; it also decides all claims for benefit."¹

¹ From a detailed description of this Society in *Journal of Agricultural Co-operation*. January, 1914. A.W.A.

This system of allowing one branch preponderating power has been a well-known feature of organisation amongst friendly societies, where it is known as government by "ruling branch." In the early part of their history some of the great orders were organised on this principle and some small societies with branches have continued it to the present day. But not many pig clubs have branches.

When a person, having paid an entrance fee, becomes a member of a society, he can at once insure pigs, by paying an entrance fee for each animal. Sometimes a society has a flat rate for all animals, but generally there is one rate for "stores," and another for breeders. The Kineton Society has an elaborate graduated scale. The usual premium for a store pig is about sixpence, for a sow 2s. 6d. for the breeding period, for a boar 2s. 6d. per annum. The premium for stores covers their whole life period, but few clubs insure animals till they reach the age of two months. Before being admitted, each animal must be inspected and approved either by members of the committee, or by an official "marker," according to the provision of the rules. The members of committee, or the marker, as the case may be, also assesses all claims for compensation. Animals are usually insured for full value, but the society reserves the right to make use of the carcass, or to deduct the value of the carcass from the sum paid to the owner. Some of the larger societies, however, have adopted the principle of only insuring part of the value of each animal. This is necessary where the members are poorly acquainted with each other, and close supervision of their animals is impossible. At Spalding, the Hand-in-Hand Pig Club only pays 3s. 6d. in the £ on the value of a pig dying within eight weeks insurance; between eight and twelve weeks 10s. in the £; and after three months 15s. in the £ is paid.

Some societies have been organised on the periodical dividend system, but many others, whose rules do not provide for dividends, have paid out bonuses to members when their funds increased beyond what they regarded as the necessary limit. In a few cases such dividends have been disastrous. Many clubs hold an annual dinner, open to all members, and usually paid for out of the ordinary funds. This may account for the fact that so few pig clubs are registered, because it would then be an illegal practice, and as Sir George Young said in another connection, "the feeling is tremendously strong in the mind of the agricultural labourer that a club from which (so long as good luck attends him) he gets absolutely nothing; no beer, no feast, no fire, is too hard for human nature to bear." But though the dinner has often been abused, it has a distinct

³ By special resolution.

function in associated life, and it is a pity that arrangements cannot be made whereby a club could obtain the benefits both of the annual dinner and of registration. But the fact that the percentage of officials of unregistered societies who are dishonest is very small, and that disputes over assessment of compensation in these clubs practically never occur, shows the strong ground for mutual confidence which exists in English villages.

The financial circumstances of these clubs vary a great deal, but the Kineton Society is somewhat typical of the best of them, and a statement of averages for ten years may be given.

Average of Ten Years, Kineton Pig Club.

No. of Members, 119·6.			No. of pigs insured, 205·1.		
<i>Income.</i>			<i>Expenditure.</i>		
	£	s. d.		£	s. d.
Contributions	6	8 6½	Management	2	10 6
Insurance Premiums	6	3 6	Amount paid on claims	9	6 5
Carcasses sold	0	16 9			
Fines	0	2 8			
Interest	1	18 4			
	£15	9 9½		£11	16 11

Average annual death rate, 5.

Average rate per 100, 2·5.

Formed in 1890, the Club had accumulated 107*l.* by 1908, when bonuses amounting to 59*l.* were paid to members in sums varying according to the term of membership. At the present time the funds are again steadily accumulating.

The number of pigs insured per member varies from one to half a dozen, and the average number per member varies considerably amongst the numerous clubs. But the average for the whole is less than two per member. The club formed at Calne in 1906 has an average of eleven pigs insured per member. The death rate ranges between 2 and 5, with an average of between 3 and 4 per cent. Proposals have been made that these clubs should amalgamate for the re-insurance of their risks, or form county or district affiliations, and if such a movement could be inaugurated it would undoubtedly be of economic and educational value to the villagers. But at present little can be done, for even the idea of registration is not welcomed by the officers of many clubs. The distribution of the model rules compiled by the Board of Agriculture, and other educational influences, may help to put these societies on a more permanent basis, but spontaneous associations of this character need to be delicately and sympathetically approached if they are to be led to a greater sphere of usefulness.

2. COW CLUBS.

There are now 157 clubs for the co-operative insurance of cows in England and Wales, distributed over fifteen counties. Of these 117 have 4,582 members, with 14,316 cows and calves insured, and assets amounting to £2,656*l*. They are organised on much the same principles as the pig clubs, membership being confined to one large parish or a small well-defined district. Most of them probably originated in the latter half of the nineteenth century, but some few were formed earlier, and one at least has had a continuous existence for over a century. Out of the total number only twenty-two are registered, but they appear to be more permanent in character than pig clubs, probably because of the greater volume of their financial business.

It is rather striking that cow clubs are generally found where small holdings, especially of an old-established character, exist in unusual numbers. For instance, a very prosperous club exists at Whixall, in Shropshire, where there are 170 small holdings in a parish of 2,300 acres, and at Friskney, in Lincolnshire, where a good club has existed for over half a century, holdings between 1 and 50 acres constitute 78 per cent. of the total number. The number of animals insured by the clubs may vary between 40 and 1,400, the average for 21 registered societies being 220, and for 86 societies, including both registered and unregistered, 115. The membership varies between 20 and 300, the average for 86 societies being 41.

The method of collecting premiums in cow clubs differs somewhat from that adopted by many pig clubs. When the member of a pig club has paid his entrance fee he pays a small subscription every quarter irrespective of whether he has animals insured or not. This arrangement has doubtless been made to preserve the continuity of the club when there is no continuity of possession of pigs by members throughout the whole year. But in the cow clubs an annual membership subscription is paid, and generally an entrance fee, and a quarterly subscription for each animal, fixed according to age or rate of insurance. The annual premium for an adult animal varies between 4*s*. and 8*s*. per annum. Few, if any, of the societies insure the full value of all animals. Some societies pay full value for some animals, but fix a maximum amount for insurance; others pay a fixed proportion of the value of each animal. The average death rate varies considerably, some localities being apparently unhealthy for cow stock, but the average is about 2.5 per cent. In 1912 the average loss per animal incurred by twenty-two registered societies was 4*s*., while the average compensation per animal dead was 8*l*. 5*s*. This includes a small percentage of immature stock, amongst which

the death rate is higher than among cows. The costs of management amount to about 6d. per cow, and altogether it has been proved that the cow clubs can insure stock at a cost of some 3 or 4 per cent. per annum of the total value of animals, while the insurance companies demand a premium of some 7½ per cent. While doing this many of the clubs have been able to build up considerable reserves. In 1912 eighty-six societies had funds amounting to over 10,000*l.*, while some societies have accumulated sums much larger than the average for this group. The Whixall Club had 1,500*l.* in 1908, when it decided to reduce its reserve by making a dividend of 500*l.* among its members. Fortunately the practice of making dividends is not so common among cow clubs as among the pig insurance societies. A scheme has recently been laid down by which cow clubs may reinsure part of their risks with a co-operative insurance company, but an increase in the number of clubs registered seems to be a necessary preliminary to any scheme of development. As in the case of the pig clubs, it seems a pity that so few societies take the advantages accruing to the process of registration, and that some attempt is not made on the part of the officials of the clubs to strengthen their position by federation, and to extend the benefits of such associations into other localities.

3. HORSE INSURANCE SOCIETIES.

Besides the clubs which insure pigs and cows respectively, there are three registered societies which insure both cattle and horses, also one which insures both cattle and swine. There are twelve which insure horses only. These are organised on the same principles as the cow clubs. The best known horse insurance society, that at Bedworth, Warwickshire, has about ninety members and insures over 100 horses. The insurance rate is 1*d.* per week for every 5*l.* in value, besides a yearly subscription of some 4*s.* per annum. This is little more than half the rate charged by insurance companies. But the most interesting feature of the work of the Society has been the arrangement for veterinary attendance on all horses insured, in the same way in which sick clubs contracted with their medical officers. An annual parade is held, when all animals are inspected and valued by the veterinary surgeon, and a careful record is kept of the age and condition of each. This valuation serves as the assessment for compensation, three-fourths of the value placed upon any animal being paid if it dies within the ensuing year. The social character of this parade undoubtedly has considerable influence on the owners of horses and serves to strengthen the society, for its solidity is remarkable, especially when the competition which must occur

between many of the members, most of whom are small hauliers, is remembered.

CREDIT AND STOCK IMPROVEMENT SOCIETIES.

Amongst the modern associations which fill the place of the ancient guild and parish organisations, are credit societies, cattle improvement societies, and horticultural societies. Credit societies are comparatively recent and have been formed for the purpose of advancing loans to villagers who are struggling to maintain or to improve their economic position. Though perhaps primarily intended to provide assistance for allotment holders and small cultivators, an analysis of the actual membership of several societies has revealed the fact that village artisans and tradesmen, in fact, all classes except large farmers, have received benefit from their activities. There are now about thirty societies which make loans to members, though over forty have been registered. They have all been formed since 1890, and most of them since the opening of the present century. All credit societies seem to be registered, which may be attributed partly to the peculiar character of their business and partly to the fact that they are the result of stimulus or assistance given to villagers by interested persons of superior social standing. Membership is confined to residents in a definite area and to "persons of approved character." Shares are generally taken by members, but only a small percentage of share capital is paid up. The liability of members for debts of the society is unlimited. For the purpose of loans capital is sometimes given by friends of the societies, or money is obtained from joint stock banks. In fact, many societies were started by loans from the originators of the institutions or other friendly persons. At the present time a considerable amount of the loan fund is derived from deposits placed with the societies. In 1910 deposits with thirty-one societies amounted to over 1,000*l.*, debts to other banks to nearly 500*l.*, gifts to 150*l.*, and earned profits to 155*l.*, while loans amounted to 1,500*l.* The number of members varies between half-a-dozen and fifty, the average being about twenty-four. About one quarter of the members receive loans each year, the amount varying between 2*l.* and 50*l.*, and averaging about 15*l.* Loans have been made for almost every conceivable purpose in legitimate village trade and industry, but in every instance the purpose to which the loan is to be applied is approved by the committee, and no applications of funds to other than approved purposes are allowed. Probably most of the loans have been applied to agricultural purposes, but many trade loans, including some to contractors to build cottages, have been made. The rate of interest charged is usually about

5 per cent. per annum, while 3 or 4 per cent. is paid on deposits, and the societies have to pay from 3 to 4½ per cent. for loans from joint stock banks. Management expenses have generally been small, and considerable profits have been made by a few societies. Profits cannot be divided, and in case of dissolution they must be used for some purpose of public utility in the locality. Current profits are applied to a reserve fund, and when this is sufficient to meet any emergencies, profits can be reduced by increasing the rate of interest to depositors, or diminishing the rate to borrowers. So far the records of the societies show that loans are returned with a high degree of promptitude and honesty, although of course cases are not unknown where the sureties which each borrower must provide have been called upon, and in numerous cases loans have been renewed.

Stock improvement societies, mostly formed since 1890, have had for their object the provision of pure bred sires, for the improvement of stock in their locality. Although their members consist for the most part of farmers, membership is not confined to one social class, and the associations serve the interest of any person breeding a certain kind of stock within the locality. The object of most of the societies has been to provide either Shire horses or Shorthorn sires of reliable character, and almost without exception they have been a great success.

In another field the village horticultural societies have had the same results. There are several hundreds of these in large English villages, having for their objects the stimulation of improvement in garden and allotment culture; and, also, the provision of the annual fête which no other association has provided for the parish. These associations were mostly formed in the last quarter of the nineteenth century, and some of them have been in existence for about fifty years. Some were formed under patronage, others were formed solely by villagers. In a few cases they developed out of a small exhibition of fruit and vegetables on the occasion of the annual club day of the village sick club. By means of membership fees, but more by collected subscriptions, they are able to hold annual exhibitions of fruit, flowers and vegetables, for the purpose of creating interest in horticulture, and in this way much good has been accomplished. Some shows are "open," others are confined to one parish, but in any case visitors from neighbouring parishes are numerous, and social intercourse between villages is increased.

CONCLUSION.

It is not too much to say that during the last century such corporate life as the villages of England have enjoyed has

centred round their various clubs, and it is noteworthy that the birth and development of these institutions have been due to the associative instinct of the labourers, the artisans, and the small middlemen. For a large part of the nineteenth century the farmers were too prosperous to feel the need of collective action, and the economic benefits offered by the usual village associations were not of the kind to attract them, so that they only appeared in connection with these societies as honorary members, or friends. Harder times have once more reminded them of the economy of mutual action for protection and advancement, and such organisations as the National Farmers' Union, with its county and village branches, and the various farmers' co-operative societies, are the outcome of it. But for a century or more it was the humble inhabitants of the villages who carried on the traditions of associated life in rural England.

ARTHUR W. ASHBY.

The Orchard,
Tysoe,
Warwick.

THE HOUSING OF THE AGRICULTURAL LABOURER.

THE special requirements of the householder must always be the governing factor in the planning of a dwelling house, though the actual design will be influenced by many other considerations. The necessity of providing for sound and hygienic construction, and seemly and attractive elevations, within the prescribed limits of cost; the nature of the available building materials and labour, and any restrictions that may be imposed by the particular conditions of the site, have all to be taken into account; and the aim of the architect must be to plan a home as comfortable as may be within these limits.

It will perhaps be admitted that the requirements of most classes of householders are well known and fairly well met as a rule; but in the case of cottages for rural labourers it is open to question if architects, either from lack of adequate knowledge of rural conditions, or from a misdirected zeal to reform the labourer's mode of living, do not commonly reverse the usual procedure, and instead of designing cottages to meet the householder's peculiar needs, require him to adapt his needs to a particular type of plan.

Though much attention has been given to the "cottage problem" of late years, it has been considered for the most part in its sociological, economic, or æsthetic aspects, and few

attempts have been made to ascertain in detail the practical requirements of the rural labourer, or to differentiate them from those of the urban worker. It is true that this aspect of the subject has been dealt with to some extent in the chapter on the rural labourers' cottage in the valuable Report of the Departmental Committee on Buildings for Small Holdings, which, by laying down adequate minimum standards of accommodation, and summarising the main points to be observed to ensure convenient planning of rooms, has performed a most useful work. But here the evident desire to reform the cottager's mode of living on certain lines seems to have precluded a sympathetic treatment of the subject from the labourer's point of view, and it is very much open to doubt if the kitchen-living-room and scullery type of plan which it advocates is the most adequate response that can be made to his requirements.

The *Country Life* Competition for Cottage Designs again, whilst doing an excellent work by demonstrating in a practical way that economic cottage building need not necessarily be unsightly, and that the old building traditions existing in various country districts are still applicable to modern needs, unfortunately did not allow of any advance upon the accepted type in planning. Except in about three cases in which a parlour was required, the conditions of the competition for the eighteen pairs of cottages were based entirely upon the Report of the Departmental Committee, and little latitude in planning was allowed to competitors, whose efforts were confined to the perfecting of the few possible combinations of a living-room and scullery and three bedrooms of more or less rigidly specified sizes.

At the present time, when it appears likely that the Legislature, as part of a scheme to improve rural conditions, may shortly introduce measures that will result in the erection of many thousands of cottages throughout the country, it is especially important that no doubt should exist as to the precise form of housing accommodation generally required by the rural worker; and in the following remarks it is proposed to consider the type of country cottage now customarily recognised as the best for its purpose; to inquire how far it meets the actual requirements of the rural labourer; and to endeavour to ascertain in what directions modifications are desirable.

The accepted type of plan consists of a good-sized kitchen-living room, a small scullery, and a larder, on the ground floor, with coal-house and E.C. or W.C. either in an outbuilding or, less frequently, under the main roof. On the first floor three bedrooms are provided. The front door generally opens into a small lobby leading to the living-room and staircase, or

perhaps to the living-room only, in which case the staircase is approached through the room. Occasionally the lobby gives direct access to the scullery also, but usually the scullery is approached through the living-room, with a back door giving on the yard and leading to the outbuildings. The copper is commonly placed in the scullery, together with a small cooking stove intended for use in warm weather, though a separate washhouse is sometimes provided. A bath is often provided, either in the scullery or in one of the bedrooms.

An example of a plan of a pair of cottages of this type is shown in Fig. 1.

When, for economic reasons, the size of the cottage has to be kept down to the minimum, the third bedroom is frequently planned on the ground floor in order to obtain adequate space for the two larger bedrooms upstairs, but when this is done the ground floor bedroom is almost invariably used as a parlour, and the cottage may more properly be regarded as of a "two bedroom and parlour" type.

The larger type of cottage in which a parlour is provided in addition to the three bedrooms need not be considered yet, as it does not appear to be open to the same criticism as the smaller type, and unfortunately the extra cost entailed is prohibitive in the majority of cases.

The Departmental Committee recommended the following sizes as the absolute minimum for rooms in a small holder's house :—

Living-room	180 sq. ft.
Scullery	80 "
Larder	24 "
Bedroom No. 1	150 "
Bedroom No. 2	100 "
Bedroom No. 3	65 "

But while considering that this accommodation represents no more than is desirable for a rural labourer's cottage, the Committee was of opinion that it might be allowable in some cases to erect smaller houses, and suggested the following dimensions as representing the smallest house which it is justifiable to erect as a family dwelling, which should in no case be reduced to meet exigencies of cost :—

Living-room	165 sq. ft.
Scullery	65 "
Larder	18 "
Best Bedroom	144 "
Smallest Bedroom	65 "
Parlour (where provided)	100 "

The type of plan described has been evolved on the assumption that the family will live in the "living-room" and that the dirty work of the house will be done in the scullery,

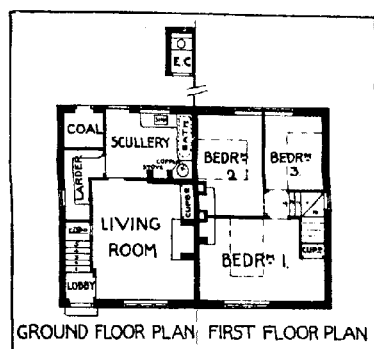


FIG. 1.
PLAN OF A PAIR OF COTTAGES OF THE ACCEPTED TYPE.

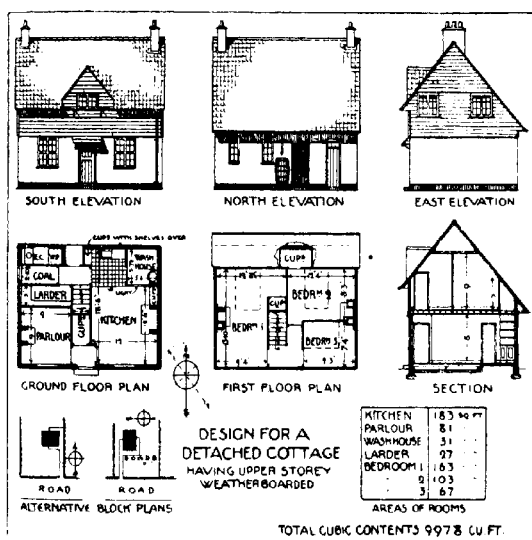


FIG. 4.

and if this were actually the case all might be well; but in practice we find that the assumption is not justified, for in most districts the scullery, however small, is almost invariably used both as living-room and work-room, while the so-called "living-room" is considered as a parlour and used only on Sundays or for the reception of occasional visitors. This fact is borne out in the Abstract of Evidence given before the Departmental Committee, at least two of the witnesses examined being of opinion that the scullery would be used as the main living-room if it were large enough to hold a small table.

There are several reasons for this state of things. In the first place, there is a general desire on the part of the better class of labourer and his wife—of the latter especially—for a parlour room which can be kept decently clean and tidy, where what they consider their best things can be kept as free as possible from wear and tear, and out of the children's reach. Like most other people, they have a pride and pleasure in their possessions, few and poor though they may be, and cannot afford to replace them often. It is easy to belittle the labourer's "household gods," and no doubt to a more cultivated taste the cheap and often useless furniture and ornaments seem unworthy of being honoured with a special apartment; but it should be remembered that their owner does not see them in this light, that they represent to him the amenities of life, and help to give him a certain social status amongst his neighbours. Also, he has a natural wish for a room into which he can bring his neighbours with the maintenance of an appearance of respectability, and without unduly exposing the mysteries of his private life; and the living-room of the accepted type of plan serves none of these purposes when it has also to serve as kitchen, dining-room, and children's play-room.

Secondly: the labourer, when not working on the farm, generally has a garden or allotment to cultivate and has little leisure time to spend in his cottage, so the room in which his wife does most of the household work will naturally tend to become the chief living-room. She will spend the greater part of the day cleaning up and washing, cooking and preparing meals, and when the bedrooms have been tidied nearly all of this work will be done in the scullery; and it should be remembered that if she has any young children she will doubtless have them with her, so that she can look after them properly, though the atmosphere in the small scullery, especially on washing days, can be neither wholesome nor pleasant.

Again, it is not sufficiently recognised that the agricultural labourer's occupation is not a clean one, and that when he comes in from work in the farmyard or on the land, his dirty

boots alone will act as a strong inducement to the good housewife to give him his meals in the scullery, and she can do so the more easily, as a small cooking stoye is generally provided there. This may seem a small point, but it is one of much importance in the cottager's eyes. Even if the scullery be not used entirely as a living room there will be a desire to keep the larger room as clean as possible, and this desire seems worthy of all encouragement. To quote a leader-writer in *Country Life* (October 18th, 1913):—"When the British housewife finds her belongings crowded into a narrow space which the children keep untidy, when nothing she can do will make the place look homelike and nice, she would not be human if she did not incline to fall into the ways of a slattern. . . . The interior of the house is the woman's domain, and it never will be completely home until she is as proud of the inside as the man is of the outside."

From these considerations it will be seen that there is great temptation for the cottager to use the scullery almost entirely as a living room, and little inducement to use the larger room except during the two or three evening hours when the day's work is done, and in summer, when the family probably prefers to be out of doors, there is little occasion for its use even then. So the cooking range is adorned with filigree paper, the ornaments are displayed to the best advantage, and the room becomes a parlour, which, except on Sundays, is seldom used otherwise than as a passage to the staircase or larder.

The remedy for this state of things recommended by the Departmental Committee is that the scullery should be made small and uncomfortable to live in:—"When no parlour is provided, care must be taken that the scullery is not so arranged that the family can use it as a living room; while it should permit of as much as possible of the work being done there, it should not be large enough to tempt the occupiers to keep the living room shut up as a parlour for occasional use only."

Mr. Lawrence Weaver in his notes on the *Country Life* competition writes to the same effect:—"In cottages where there is no parlour it is very desirable that sculleries should be so planned as to discourage their use as living rooms. The tendency of cottage tenants is to cling to the idea of a best room where their household gods may be properly displayed. There are too many cottages in this country where the kitchen living-room is not used for living in, and this is all to the bad. The best room in the house is sacrificed to a sentiment, and the family crowds into a small, inconvenient and inevitably dirty scullery. It is for this reason that large and comfortable sculleries are a mistake. Cottagers should be compelled by the

logic of necessity to live in their best room and not to preserve it as a museum for chairs on which they do not wish to sit and for ornaments which they do not see, except perhaps on Sunday afternoons."

This solution of the difficulty is not one that can commend itself to those whom it most intimately concerns; and it can hardly be doubted that if it be adopted it will prove to be an aggravation rather than a mitigation of the evil it is intended to remedy, for it is certain that families may frequently be seen living in sculleries which are mere passages, even smaller and less comfortable than those shown on the plans accompanying the Departmental Committee's Report. One sometimes hears the labourer accused of "living like a pig" in his small scullery, and it is not recognised that if he does so it is very probably because he wishes to be sure that at least one room in his house shall not resemble a pigsty. It seems unreasonable to assume that he does not best know how to make use of the rooms provided for him with a view to his own comfort and convenience, and rather unfair to employ the logic of necessity to prevent him from living as he chooses. It is very much open to doubt if any real reform can be effected in the labourer's mode of living by ignoring his sentiments and endeavouring to compel him to adapt his wants to an arbitrary type of plan, and it might be a wiser course to recognise his wishes and requirements, and to design cottages to meet them as far as possible, as is necessarily done for other classes of householders.

When, on account of the extra cost, the provision of three rooms on the ground floor is out of the question, the agricultural labourer's requirements would probably best be met by combining the scullery and kitchen in one large room and providing a small parlour instead of a separate scullery.

It is objected to this type of plan that when space is so limited the provision of a parlour to be used only as a sort of household museum would be bad economy, and that the desire for it, being only a form of snobbishness, should be discouraged. No doubt to a certain extent this is perfectly true; but it has been seen that the desire for the parlour is imperative, and it is better economy to have the small room set apart for this purpose than the large one; and it has also been urged with every appearance of truth that the parlour does serve a useful purpose in marking a certain standard of living to be kept up, and that the snobbishness which demands it is not altogether bad in its results, in that it impels a man to take a greater pride in having his home clean and tidy, increases his self-respect, and stimulates his ambition. However this may be, it seems to be a matter which might

be dealt with by his spiritual director rather than by his architect.

Mr. Weaver, although strongly opposed to the provision of parlours in five-roomed cottages, has raised an interesting point in favour of the parlour as such, in his report on the *Country Life* Competition. "The whole trend of educational opinion is in the direction of advancing the age at which children will be permitted to stop their education. If the scope of primary schools is to be increased in this respect, the higher standard of training will bring with it the need for home lessons in the evening. Anyone who is familiar with cottage life in the country will know how difficult it would be for children to work at their books in the common living-room, and the time is coming, therefore, when a parlour will be an increasing necessity. It is desirable, therefore, that landowners and others who contemplate building shall not rule out parlours as needless luxuries."

With a good sized scullery-kitchen quite a small parlour would appear to be sufficient, indeed it might be less than the minimum area of 100 sq. ft. recommended for the larger type of cottage by the Departmental Committee. The room would not be used for living in to the same extent as the scullery usually provided, even when that is used only as a working room, so that the minimum sizes recommended for sculleries might well apply to parlours in five-roomed cottages. Though a room rather larger would be preferable it should be borne in mind that the labourer as a rule has not much furniture to put in it, and he apparently does not consider that it is properly furnished until it is quite full. The aspect of the room is of less importance than that of the kitchen. An angle fireplace would perhaps be the most desirable arrangement in a small parlour, as it would occupy less air and wall-space than one with projecting jambs.

In exceptional cases in which the family would not require a parlour or could not afford to furnish it, the room might be used as an extra bedroom, or let to a lodger, an important consideration in rural districts. Single men employed as railway porters, shop assistants, postmen, &c., and builders' men and other workers employed temporarily in the country, generally find it hard to obtain housing accommodation, so the cottager would seldom have any difficulty in getting a tenant for a spare room.

The kitchen should be as large as the limits of cost will allow—certainly not less than the minimum area of 165 sq. ft. recommended for living-rooms. The sink might be placed in a tiled or cement-paved recess, which for all practical purposes could be regarded as a separate scullery with one side open to the

kitchen, and the draining-board and a cupboard with a small dresser for pots and pans might be fixed at the side, in addition, of course, to the usual kitchen dresser, and as much shelving as possible provided, so that as far as may be washing operations would be kept clear of the "sitting-room" part of the kitchen, and every facility afforded for keeping the room clean and tidy. Objection may be raised to having the sink in a living-room, but without very much reason. There is nothing particularly obnoxious about the washing of pots and dishes, &c., or vegetables, and on sanitary grounds there can be no objection provided that the waste pipe be fitted with a proper stench trap, as it always should be wherever the sink be placed. The obvious advantage of this arrangement would be that the woman and children would do almost all the household work in a large room, which really would be a "living-room."

The practice of omitting to provide a sink, or a drain with an open trapped gully outside to take the sink waste, is much to be deprecated. It offers every temptation to a slovenly woman to throw greasy water and household slops just outside the door, thus rendering the ground immediately about the house foul and unpleasant. The cost of a short length of 3 in. stoneware drain to a soakaway is comparatively small, and the saving effected by omitting it is not justified.

The position of the washing copper presents a difficulty. It cannot be placed in the kitchen if the room is to be kept clean and pleasant to live in, and it would appear desirable to plan a separate wash-house. Some authorities on cottage planning strongly advise that the copper should be placed in an outbuilding, and when the only alternative position for it is in the scullery no doubt this is the better plan to adopt. But if a small separate wash-house be provided it seems preferable to have it under the main roof. The housewife finds the outside wash-house a continual source of colds in bad weather, when she has frequently to pass through the open air to and from a steaming washing-tub. It is also very difficult for her to look after the children while she is washing. The writer's attention was lately called to a case in which a child was burnt in playing with the kitchen fire while the mother was working in an outside wash-house. Accidents of this kind might be avoided with a wash-house under the main roof, especially if a small pane of glass were fixed in the door or wall in such a position as to enable the kitchen fireplace to be seen by the worker. Perhaps the best arrangement would be to plan the wash-house adjacent to the "scullery" part of the kitchen, contriving it so as to form the recess in the kitchen for the sink, &c. The copper flue could then generally be arranged to join one of the main chimney stacks. The wash-house need only be large enough

to enable the household washing to be done in it; space for a mangle and a low table for a wash-tub must be provided. A steam-consuming copper should be fixed, and the wash-house well ventilated with air-bricks fixed in the outer wall just under the ceiling.

It is doubtful if a bath should be provided in an agricultural labourer's cottage. In many country districts the water supply is inadequate, and when the rainwater supply gives out water for domestic purposes has often to be fetched in pails from a considerable distance. As a rule there is no demand for baths, and the supply has not hitherto resulted in stimulating one, the bath, when provided, being almost invariably used for storing coal, potatoes, soiled linen, &c. This may in some degree be due to the fact that it is generally placed either in the scullery, which, when used as the chief living room, is not a convenient bath-room, or else in a bedroom, where it entails the maximum amount of trouble, as the water has to be carried upstairs, and afterwards baled out and carried downstairs again. The general practice seems to obtain of bathing the children in a portable bath before the kitchen fire on Saturday nights, and there does not seem to be much reason why much more than this should be required.

However, in many cases it will probably be desired to provide a bath, and the wash-house, when planned under the main roof, would seem to be the most convenient place for it. If it be arranged so that it can readily be filled with hot water from the adjacent copper, and emptied by a waste pipe discharging over the gulley or a channel to the gulley outside, it may perhaps be put to a legitimate use. The bath should be small and of such a shape that it would not require a great quantity of water. It should be covered with a table top on independent supports, hinged to open upwards and form a shutter against the lower part of the window; and it might be well if the floor were sunk an inch or two below the bath so that the table top would be at a convenient height for working at a washtub.

The staircase is nearly always planned to start from the small lobby immediately inside the front door, and sometimes directly from the living room, and these are no doubt the best positions for it in urban districts; but in the country cottage it would appear more desirable to have it in close proximity to the back door when both front and back doors are provided. The back door is almost always used by the inmates of the house, and by most callers, the front door being very seldom used except by occasional visitors and for social functions. When one calls at the front door of a labourer's cottage, the difficulty that is generally very evidently experienced by the

inmates in drawing the bolts and opening the door bears ample witness to this fact. The arrangement of the staircase rising from inside the front door serves no useful purpose, for it is very rarely required to bring the casual visitor upstairs, whereas by planning it to rise from inside the back door greater facility is given for sweeping and cleaning, and direct access would be obtained from outside to the bedroom floor without passing through the living room, which, bearing in mind what has been said with regard to the uncleanness of the labourer's occupation, would appear to be a distinct advantage. A more important point is that the usual arrangement entails the carrying of bedroom slops through the living-room and scullery to the back door, and a little consideration of the ordinary sanitary accommodation of the rural labourer will show how very objectionable this is, more especially at times when there is illness in the house, or when any of the occupants are aged or infirm.

The going of the stairs should be as easy as practicable, and space should admit of ordinary bedroom furniture and a coffin being carried up and down. It is not desirable that the total width over the strings should be less than three feet, except in the case of an entirely straight staircase, which, perhaps, it is permissible to make rather narrower provided there is ample turning space at the top.

Detached cottages and pairs can often be conveniently planned with only one outer door, placed at the side, and if this gives separate entrance to the two rooms and the staircase, and allows of privacy of access to the yard or outbuildings, it is better, than having two doors, as the second one takes up valuable wall and floor space, and tends to make the house draughty. This arrangement will generally involve a rather longer passage or lobby than is usually provided inside the front door, in order to obtain separate entrance to the rooms, and at first sight this may appear an unwarranted waste of space. But it should be remembered that when two doors are provided, quite apart from the loss of working space involved by the kitchen and scullery being passage rooms, an area of at least nine square feet is wasted at each door to enable it to be opened, and the same area given to one lobby, say, six or eight feet long and three feet wide, will be a valuable asset in a cottage, as a bicycle or perambulator, and various other articles for which no definite place is often assigned, can be kept in it. This passage should, therefore, have a tiled or cement-paved floor, so that it may easily be washed.

Privacy of access to the yard and E.C. is rather difficult to arrange, but if the outbuildings, where such are required, be so contrived that their roof can be extended to form a covered

porch outside the door, another door or gate can be hung in this porch giving on the yard or covered space, so that access to the outbuildings is obtained under cover and there is no necessity for any unseemliness about the doorway to meet the visitor's eye. This arrangement is shown in the plans illustrated in Figs. 2, 3 and 4.

The larder is an important feature in the plan of a rural cottage, much more important than in urban districts, where a small ventilated cupboard, or the space under a staircase, is often considered sufficient. The agricultural labourer requires to store a larger supply of food, and he may have to salt his pig in the larder, so that he requires a greater area and more ample headroom than the town worker. In districts where bacon-curing is still carried on in the cottage, it seems to be customary to salt the pig on the concrete floor rather than in a tub, the brine being confined within a basin formed with a few bricks. The operation might perhaps be facilitated by forming a dish in the concrete at one side of the larder with a shallow channel to run the brine off through the outer wall. It is to be feared that larders are very often made too small. The minimum area of 18 sq. ft. recommended by the Departmental Committee should in no case be reduced, and a larger area is much to be desired. A window should of course be provided in addition to a couple of air bricks as ventilators, and it should either have a north aspect or be otherwise protected from direct sunlight. In pairs or blocks of cottages with east and west aspects this is generally hard to arrange, but it can sometimes be contrived by placing the window in a porch or other covered open space (Fig. 3). It is undesirable to have the larder window near the E.C. When the wash-house is planned adjoining the larder, care should be taken that the copper furnace is not placed directly against the dividing wall, in which position it would inevitably raise the temperature of the larder.

With a scullery-kitchen plan it is especially important that there should be adequate cupboard accommodation in order that the room may be kept tidy, and at least one large cupboard should be provided in which brooms and pails and cleaning apparatus generally can be kept. A smaller cupboard with shelves is desirable near the kitchen range.

Local building by-laws very often insist that the E.C. shall be situated at a distance of at least 10 ft. from the main building, and no doubt this is on the whole a good regulation. Nevertheless, much depends upon the general plan of the cottage, and when the rule is not enforced, and when there are no living-room, bedroom, or larder windows on the same side of the house, there does not seem to be any objection to having the E.C. under the main roof provided that it is entered by an

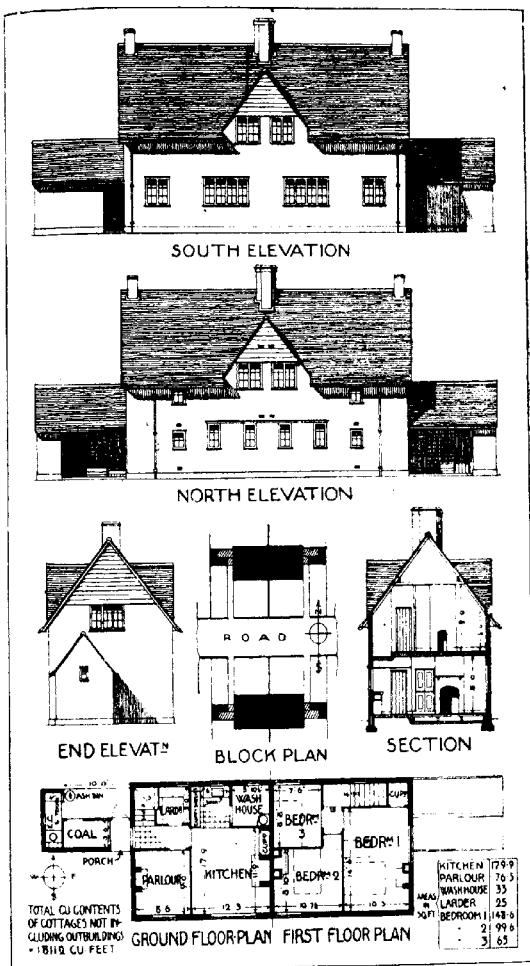


FIG. 2.

DESIGN FOR A PAIR OF COTTAGES ADAPTED FOR NORTH AND SOUTH ASPECTS.

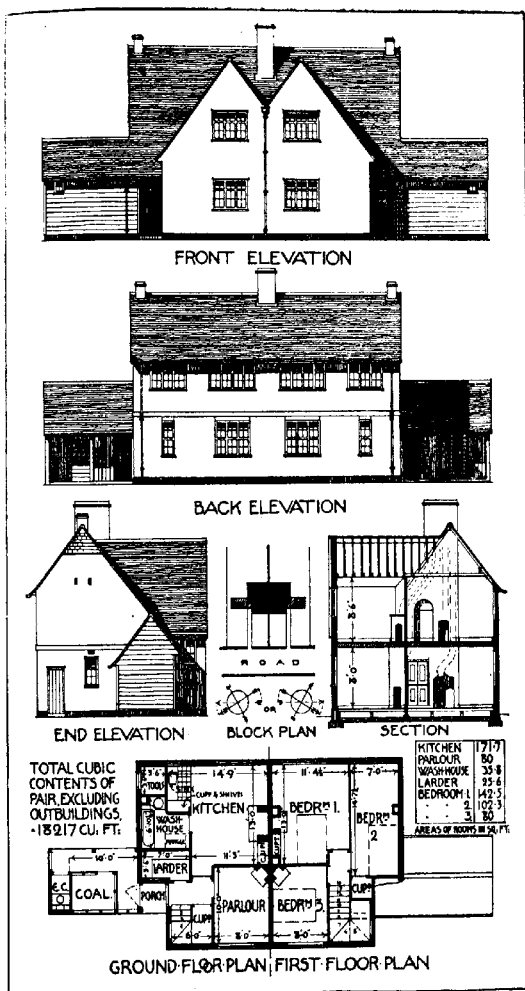


FIG. 3.
DESIGN FOR A PAIR OF COTTAGES ADAPTED FOR EAST AND WEST ASPECTS.

external door from the open air. When it is detached from the house every facility of access to it should be afforded. One often sees the E.C. situated at a considerable distance from the cottage without any convenience of approach, and this must involve much inconvenience and discomfort in wet weather or when there is snow on the ground. It should be borne in mind that the E.C. may have to be used by aged people and invalids, so it is in every way desirable that it should be approached under cover. This may perhaps be economically contrived by planning it at a distance of 10 ft. from the house, and the coal shed, with a width of about 3 ft., in the intervening space, with its roof extended over a 3 ft. causeway from the house to the E.C. door. A length of 10 ft. is by no means too great for the shed, as it will be used for storing wood and tools, pigmeal, &c., as well as coal. The walls of the shed, not being exposed to the weather, might well be of a very light timber construction if any saving could be effected thereby.

When the coal house is under the main roof and economy has to be very strictly studied, a Yorkshire board roof as used in farm buildings might be put over the causeway to the E.C. This would only require three light beams as supports at the eaves and ridge, and a small quantity of creosoted grooved Yorkshire boarding could probably be obtained locally. The boards should be laid to a square pitch, $\frac{1}{4}$ in. apart, resting on hobnails where they are fixed to the timbers. This might be a good arrangement for pairs of cottages, where the E.C.'s are placed side by side with a dividing fence between them and the houses.

Where the E.C. will probably be used by children a self-acting apparatus operated by weight on the seat would appear to be the most preferable type.

The covered way will be a convenient place for keeping the sanitary dust-bin, which should be kept dry in order that its contents may not become offensive, and when a pump is required for a well or underground rainwater tank it can also be placed there with advantage.

The bedroom plan is usually conveniently arranged and does not call for much comment. The requirements of the rural cottager in this respect are much the same as those of the town dweller, and there is not the same difficulty in meeting them as exists in urban districts, where the conditions imposed by narrow sites, and the frequent impossibility of side lighting, often render it very difficult to secure rooms of convenient shape with adequate light. The Report of the Departmental Committee sums up the main points to be observed in the planning of bedrooms, and they need not be repeated here. One point

in which the countryman differs from the townsman is worthy of note; as a rule he possesses double beds only, so there must be a convenient place for a bed measuring at least 4 ft. 6 in. by 6 ft. 6 in. in even the smallest room. A long room, provided it be not less than 7 ft. wide, will generally be more convenient than a square one of the same area, as it affords more wall space for the placing of furniture. Fireplaces are generally provided in at least two of the three bedrooms, and local by-laws usually stipulate that air bricks shall be provided as ventilators in rooms without flues. In practice it is invariably found that the occupants close these ventilators by pasting paper over them, and accordingly the window should be so arranged that, when open, it will not cause a draught about the bed, so that there may be the least temptation to keep it shut. At least one good cupboard, which can generally be contrived on a bulkhead over the stairs, should be provided, and shallow hanging cupboards with shelf and hook rail, which can be covered with a curtain, are very useful in the bedrooms.

The plans shown in Figs. 2, 3, 4, and 5 are given to illustrate the practical application of the foregoing remarks. It is not for one moment suggested that they represent ideal cottages, but it is believed that they represent a type of house that would promote a higher standard of living, and one that would be more acceptable to the majority of agricultural labourers than the type that is usually provided for them at the present time, without being more expensive. Fig. 2 shows a design for a pair of cottages with one outer door each, suitable for north and south aspects, and adapted for a site on either side of a road running east and west. As will be seen from the block plans the outbuildings could be reversed according to the position of the approach road. The accommodation provided is identical with that above suggested as desirable, so a detailed description of the plan is unnecessary. A similar pair of cottages adapted for east or west aspects is shown in Fig. 3. Preferably the kitchen side should be slightly inclined towards the south. A bath is indicated in the wash-house, and a tool or wood house is provided in the main block in addition to a coal shed in an out-building. This might be enlarged by slightly reducing the size of the wash-house, and it could then be used for coal, so that the E.C. would be the only outbuilding required. The extension of the out-buildings at the sides of the cottages as shown in these two plans necessitates very long frontages, but as a rule this is not a matter of any moment in agricultural districts.

Fig. 4 shows a single cottage designed on the same lines, but with both front and back doors. This plan is adapted for a south or south-east aspect with the approach road either on

the south or east side. The staircase in this plan starts from a lobby inside the back door, and the E.C. is shown under the main roof.

Plans of a group of four cottages suitable for south, south-east or south-west aspects are shown in Fig. 5. The provision of a parlour instead of a separate scullery will generally necessitate a rather greater frontage, and in this case, in order to avoid too great a length, and to give more interest to the elevations, the end cottages are projected forward and planned differently from the middle pair. The elevations are drawn for slate roofing. The accommodation shown is similar to that provided in the other plans, and need not further be described.

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LINCOLNSHIRE RED SHORTHORNS.

THE early history of the Lincoln Reds, to give the Lincolnshire Red Shorthorns their popular name, is somewhat obscure, but there seems to be little doubt that the local stock, whatever its type, was largely mixed at one time with Dutch Cattle. Indeed, it may be that this part of England was first stocked by immigrants from Jutland, Holstein, and Friesland. Gervaise Markham, in giving advice as to the choice of "a fair bull," says that the best of the English cattle were bred in Yorkshire, Derbyshire, Lancashire, Staffordshire, Lincolnshire, Gloucestershire, and Somersetshire; those bred in the first four counties being generally black in colour, while those bred in Lincolnshire were for the most part "pyde," with more white than the other colours. Their horns, too, he said, were "little and crooked, of bodies exceeding tall, long and large, lean and thin thighed, strong hoved, not apt to sorbate, and are indeed fitted to labour and draught."¹ George Culley also has something to say of the Lincolnshire cattle. Prefacing his remarks by a statement that "the Shorthorned or Dutch kind was without doubt imported from the Continent, because they were in many places still called the Dutch breed of cattle, and because they were to be found chiefly along the Eastern coast, facing that part of the Continent where the cattle was still bred," he continues:² "In Lincolnshire, which is the furthest South that one meets with any number of this breed of cattle, they are, in general more subject to lyer or black flesh than those bred

¹ Gervaise Markham: *A Way to get Wealth*, 1695.

² *Observations on Live Stock*, 1786.

further North, and in that rich part of Yorkshire called Holderness they are much the same as those of which we have been speaking." When he paid the county a visit again in 1784, as he records in a second edition of his book, published in 1792, he found a great improvement in the cattle, chiefly by means of the purchase of bulls and heifers from the counties of Durham and York, on both sides of the Tees, where the best were confessedly bred. The cattle we then imported from the Continent were, there is little doubt, of the type seen in the pictures by Paul Potter, Rubens, Cuyp, and Teniers, in which an improved Shorthorn is depicted. Mr. William Torr, of Aylesby Manor, Lincolnshire, who travelled in Holland and visited Utrecht Fair in 1838, saw a large number of cattle of the ordinary Shorthorn type. He said they were rare milkers, had tolerable formation, a good skin, mellow handle, and nice waxy horns; they were also of every variety of colour. During the early part of the last century the designation "Dutch" still adhered to Lincolnshire cattle in the London market. Youatt has recorded that the Shorthorns of Lincoln were large and coarse, particularly about the head and horns, high on the leg, with hips and loins wide and approaching to ruggedness. They were altogether a coarser type than the improved Durhams, or even the common Holderness stock of his time, and they demanded "that Bakewellian improvement which their sheep (*i.e.* Lincoln Longwools) have received." They were well known to the metropolitan butchers as "Lincolns," and still better as "Dutch."

An interesting account of a large herd of these Lincolnshire Shorthorns, bred for many years on the same holding, at Ewerby, is given in Arthur Young's *Agricultural Survey of Lincolnshire*, and this type of cattle seems to have prevailed all over the country in the early part of last century. Here and there, however, were other varieties. Arthur Young mentions several herds of Longhorns, and says that many graziers liked to cross them with the Lincolnshire cattle, thinking that the mixed breed would feed better on poor land. Here and there, too, were herds of the improved Durham Shorthorns, and also of Holderness cattle, whilst round about the middle of the county a superior breed of dun-coloured cattle were often met with, which are said to have descended from some Channel Island stock, introduced from Alderney by Sir Charles Buck in the latter part of the eighteenth century. It must not be supposed, however, that nothing had been attempted before Young's or Youatt's time to bring about the improvement of the local breed. The methods of Bakewell, and of the brothers Colling, for the improvement of cattle were already famous, and several Lincolnshire men had set to work upon the local

stock. Foremost among them was Thomas Turnell, of Reasby, between Lincoln and Wragby. Starting with some stock from the Darlington district, and working them on to the local cattle, he produced by the method of selection a much improved type, finer in the horn, cleaner in the bone, shorter on the leg, and with a capacity for producing a wealth of lean meat much more quickly than the foundation stock. Arthur Young wrote of his stock:—"Mr. Turnell has a breed of cattle which are not surpassed by any in the county for points highly valuable, or their disposition at any age to fatten rapidly. His bull covers at a guinea, and has many cows sent to him. The breed originally came from the neighbourhood of Darlington." Other breeders in the county resorted even more to the improved Durhams, and by repeated out-crosses they performed their part in the production of an improved Lincoln, with a greater disposition than before to put on fat as well as lean, and to do both more quickly. The greatest improvement of all seems to have been accomplished by the crossing of Turnell cattle with Colling bulls. Looking at the origin of the Turnell strain, this amounted to an in-cross, which no doubt explains its success; and it was the dissemination of this blood throughout the county which began to stamp the cattle of Lincolnshire with the rich cherry-red which has made them so distinctive, and laid the foundation of the modern Lincoln Shorthorn.

All the old established herds in the county acknowledged the influence of the "Turnell Reds." They were of a rich deep red in colour, and, though slightly smaller than the general type, had wonderful fattening powers, and were noted for their superiority in producing the primest joints of meat. Of the most noted breeders in the county that acknowledged their indebtedness to the "Turnell Reds," particular mention should be made of Mr. Conlam of Withern, Mr. Baumber, of Somersby, Mr. Oliver, of Eresby, and Mr. Cartwright, of Tathwell.

The "Turnell Reds" were also introduced into the south of the county by Lord Willoughby de Eresby, and Mr. Redmile, of Dyke, who bought cattle from Mr. Oliver, of Eresby. All these herds had been dispersed before 1850. Following them the Messrs. Chatterton, of Stenigot, stand out conspicuously amongst breeders of Lincoln Reds for their efforts to continue the improvement of their herd. They were especially successful with two out-crosses which they took in sending *Alcana*, a famous cow of Mr. Coulam's breeding, to Lord Exeter's *Cambridge Duke V.*, and another of their best cows later on to Mr. Deane Willis' *Windsor Benedict*. *Cambridge Duke V.* was a bull who combined the *Duchess* and *Red Rose* blood, and the result of the union with *Alcana* was the

bull *Hercules*, who was used in the herd for nine seasons and proved a most famous sire, as was his son *Hyllus*. The Messrs. Burt also stand out for special mention, and their "Old Welbourne Reds" have had much influence on the quality of stock in the middle and south of the county.

These and many other men were working for the improvement of the breed, and whilst a great measure of success attended their efforts, and there was, no doubt, considerable agreement as to what type was wanted, it was felt that the special qualities of the Lincolnshire Shorthorn should be recognised. It is true that there was already a herd-book for which certain herds were eligible, but the majority of breeders were excluded. The long association of the red cattle with the county had given them an individuality of their own, and the desire of the Lincolnshire farmers for their own breed society and herd-book took definite shape in 1895, when the Lincolnshire Red Shorthorn Association was formed.

The admirers of the Lincoln Reds claim that, on account of their hardiness and thriftiness, and their ability to come to early maturity and fatten quickly and cheaply, they are an ideal tenant farmers' cattle. For a hundred years or more they have been wintered in fold yards with little or no shelter, fed on barley straw and a few turnips, and exposed to the coldest of winds and the wettest of weather. It is little wonder, then, that the weakest have been weeded out with marvellous certainty. They have been turned out to get their own living about the middle of April, having to face the biting East winds from the North Sea, and any delicacy in cow or calf was quickly discovered. Ponds have for the most part provided their drink during the hot summer months. And the result? All the material on which to build up an ideal dual-purpose cattle, for they are founded on the best of Shorthorn blood, and although not registered, they have been just as carefully bred as if they had been. It only wanted the formation of a breed society, and more extensive and keener competition in the show ring, to eliminate their bad points and enhance their good ones. As the writer remembers them, some twenty-five years ago just before the breed association was formed, they were a cattle of great scale, with a considerable wealth of lean flesh and very little waste; and with all the hardiness, thriftiness, and ability to come to early maturity previously mentioned. But they were still too much on the leg, uneven on the top, faulty behind the shoulders, and a man could hang his hat on their tails. They are a very different cattle to-day, retaining all the good qualities that have made them famous, while being much more perfect in

outline than the parent stock. Immediately after the establishment of the Breed Society, and the granting of classes at the Royal Show in 1901, there was a tendency to sacrifice their historic qualities to Shorthorn neatness and symmetry, but fortunately to no great extent: and to-day finds in the county a very much improved Lincoln Red, a much more pleasing animal to look upon, with all its old time usefulness.

It can hardly be claimed for the Lincoln Reds that they are naturally great dairy cattle, and many breeders, particularly in East Lincolnshire, care nothing for milk. At the same time, when they are bred on milking lines, they develop great milking capacity, and there has been no one who has done so much to develop their great capabilities, and to bring them to the notice of the public, as Mr. John Evens, of Burton, near Lincoln. His show-yard successes are far too numerous to mention; and, indeed, do not come within the scope of this article; but it might be mentioned that they include 2 Challenge Cups, 4 Champion Cups, 34 Medals and 90 money prizes at the London Dairy Show, and first and second in the Lincoln Red Milk Tests at the Royal Show for six years in succession. The Challenge Cup at Belfast was won outright three years in succession, and that at Dublin also, four years in succession. There are also a long series of successes in milking trials at Tring, the Oxfordshire, Royal Counties, Lincolnshire, Somersetshire, Bath and West, Leicestershire, Rutland and other Shows. Mr. John Evens' system has been to select the best bagged cows in the herd; those that did not fulfil expectations were eventually drafted, and other deep milking cows were added from time to time. Ever since Monday, March 23, 1885, the morning and evening milk from every cow has been weighed and recorded, and for the last twenty-four years the yearly milk records of the herd have been published. Cows yielding below a certain quantity of milk were rigorously discarded, and their offspring sold. Mr. Evens' object has been to produce milk from cows of great size, quality, and constitution. Being of opinion that "the bull is half the herd," he selects his sires from undeniable milking families. Not only must the sire's dam be a deep milker, but the dams of the grand sires on either side also. The average milk yield of Mr. Evens' herd for the past twenty-four years works out at well over 800 gallons per head, including heifers, and in one year forty-three cows and heifers averaged 879 gallons. When it is realised that the average for the first four years the milk records were published was little over 746 gallons, it will be seen how valuable such records are in grading up a dairy herd.

Another well-known breeder to recognise the value of milk records and to profit therefrom is Mr. Fred Scorer, of Nettleham, who is now joined by his son in a highly profitable partnership. Mr. Scorer adopted much the same methods as Mr. Evens in the formation of his dairy herd, and with no little success, as his victories in milking trials have gone to prove. For instance, at the London Dairy Show in 1907, *Bracebridge 3.B.* was reserved to *Burton Nancy IV.* for the Lord Mayor's Champion Cup for the cow gaining most points in the milking trials for all breeds. *Bracebridge 3.B.* was a wonderful cow, for in 1907-1908 she was 441 days in milk and gave 1,386 gallons, and in 1908-1909 she gave 1,346 gallons in 301 days, an average of 4.47 gallons of milk a day. The milk records of the herd belonging to Messrs. F. and C. E. Scorer show an average of well over 800 gallons per head. Mr. A. P. Brandt, Bletchingley Castle, Surrey; Mr. F. B. Wilkinson, Edwinstowe, Newark; Lord Algernon Percy, Guy's Cliffe, Warwick; and Mr. S. Blundell, Bendish House, Welwyn. have all been more or less successful in milking trials.

The cattle are in great demand for grazing. In the markets of the Eastern counties and Midlands, where steers at two and a half years old may be looked upon to yield seven or eight hundredweight of the best meat, there is always a ready sale, the butchers declaring that they cut up a greater proportion of lean flesh, with less offal, than any other breed they know.

Since the formation of the breed Society, the Lincolnshire Reds have spread fairly rapidly outside their native county. In the adjoining county of Nottingham there are many breeders, and a glance at the herd-book shows that the big Red Shorthorns are attracting the notice of farmers in many parts of the country. A considerable export trade has also developed. Dealing with the past three years, in 1912 thirty-one bulls and forty cows and heifers were exported. More than half of these (40) went to South Africa, and of the rest seven went to Russia and the remainder to South American States. The following year a very marked increase in the foreign demand was experienced, eighty-three bulls and ninety-four cows and heifers being shipped. Once more the greater number went to Africa (118), a few others to Russia (4) and Ireland (9), and the remainder to South America. In the current year (1914) the combined effects of the closing of the ports and the great European war have seriously affected the trade, for up to November 10 only twenty-three bulls and the same number of cows and heifers have gone abroad. The South African demand accounted for more than half of these (30), the rest being taken by Russia (7), Brazil (5), Chili (1), and Ecuador (2).

The features of this foreign demand are the popularity of the breed in the South African Colonies, and the steady repetition of purchases by the same countries year after year, testifying to the satisfaction given by the Lincoln Reds in unfamiliar surroundings. Mr. E. Hall, of Rhodes Farm, at the foot of the famous Matoppos, has a large herd, the produce of native cows by Lincoln bulls, with which he is highly pleased. He notes that they have grown well, are hardy, and they have stood the hardships of the last two dry seasons better than the unimproved native cattle. As to the South American States, it is noteworthy that the demand has been chiefly for cattle of dairy strains.

The chief mart for the disposal of Lincoln Red bulls is the annual sale, which takes place under the auspices of the Lincolnshire Red Shorthorn Association, at Lincoln, at the end of April. Nineteen sales have now been held, the highest price realised being 305 guineas, while the best average was obtained this year (1914) when 294 bulls were disposed of at an average of 30*l.* 3*s.* 5*d.* The annual sales at Alford are also very successful. These are held in November, and have been in existence under the new organisation since 1901; from 150 to 200 bulls changing herds each year at an average of about 25*l.* Sales are also held at Louth, where females are also offered, as at the Alford sales. Lincoln, Grimsby, Louth, Sleaford, Brigg, Alford, Boston, Horncastle, Spalding, and Spilsby are the principal markets for steers. The fairs no longer have their old value, but there is generally a good muster of Lincolnshire steers at Caistor, Brigg, Alford, Boston, and other old established functions.

The showyard successes of the Lincoln Reds hardly come within the scope of this article, but the most successful exhibitors might be mentioned. The Lincolnshire Agricultural Society granted classes for the breed in 1895, and the Royal Society in 1901, and the Messrs. R. and R. Chatterton, of Stenigot, were undoubtedly the most frequent prize takers for many years. Mr. W. Chatterton, of Hallington, and Mr. E. H. Cartwright, of Keddington, also achieved considerable success, as did Messrs. T. and J. B. Freshney, of Somercotes, Mr. John Searby, of Croft, Mr. W. J. Atkinson, of Weston St. Mary, and Mr. George Freir, of Deeping St. Nicholas. But in recent years Mr. John Evens, of Burton, has been nearly as successful in inspection classes as in dairy tests, though the chief exhibitors have undoubtedly been Mr. J. G. Williams, of Pendley Manor, Tring, and Mr. H. B. Brandt, of Bletchingley Castle, Surrey. A breeder who has played a prominent part indirectly in the showing is Mr. G. E. Sanders, of Scampton. Though seldom exhibiting, except at the Association's annual show and

sale at Lincoln, where he has reaped as much success as any one, there are many prize winners that boast the Scampton blood directly or indirectly.

A great deal of misapprehension has existed as to the history of the cattle, many thinking that they are but a nondescript breed, sprung up anyhow, whereas they are pure Shorthorns which have been inbred to one type and colour, and which have not been registered until recent years. Their merits are well worth making known, and their ability to grow on and improve under adverse conditions that would be unfavourable to most breeds, should certainly appeal to breeders abroad living in a trying climate; those at home desiring a genuine dual-purpose cattle need wish for nothing better than a typical Lincoln Red.

The accompanying illustrations show a cow from a well known dairy herd, and a famous bull. A heifer of a slightly different type, and another grand bull were figured in the *Journal of the Society* for 1913 (Vol. 74).

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THE LARGE WHITE YORKSHIRE PIG.

THE pristine wild boar is probably the direct ancestor of all our modern types of pigs. In slow process of time new habits have been developed, fresh points of value have been secured, and several absolutely distinct breeds have been created true to their several types. As an instance of the alterations of habits we note that whereas the wild boar buries his snout deep, rooting up the earth before him, the modern breed turns up the soil right and left of him. Moreover the wild hog places his hind feet into the slots made by his fore feet, which is not the case of the pig of to-day.

It is a question of speculation and controversy as to whom should be attributed the credit of the advance on the road to perfection of the Large White Yorkshire pig, but at any rate we may be fairly certain that Yorkshire was the stronghold of the old English hog, which is the stem of all the large and many of the smaller white breeds. Of the large breeds the Large White Yorkshire is the most important breed to-day.

The old English hog, which was generally a yellowish white, sometimes spotted with black, was very slow in maturing, but sometimes specimens fattened to a great weight. Generally speaking, however, it was anything but what we should to-day consider a profitable pig; in fact, just the reverse, being coarse-boned, narrow in the back, long in limb and low shouldered—

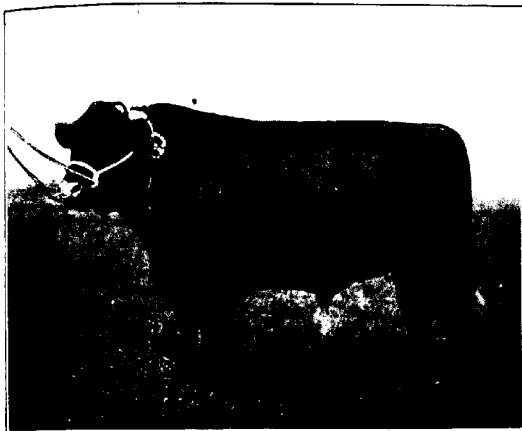


Photo by H. Parsons

FIG. 1.—Lincoln Red Bull, "SALTFLKET POLAR STAR"
First and Champion, Royal. First and Champion, Liverpool, 1911.
Owner, F. B. WILKINSON.

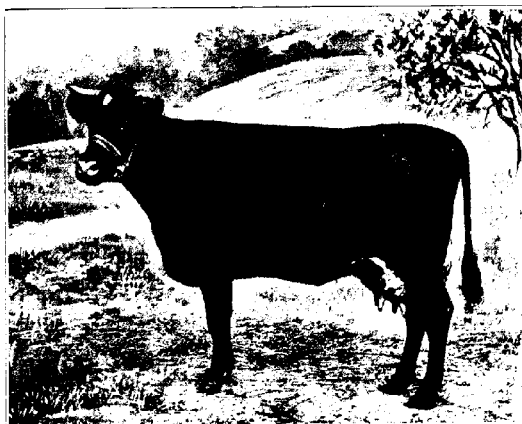


FIG. 2. Lincoln Red Cow, "BURTON BEAUTY 3RD."
First, Royal. First, Rutland, 1913.
Breeder and Owner, JOHN EVANS.

a form to which they were most probably predisposed from having to travel far, and to labour hard for their food. There are good grounds for supposing that this was the only pig that inhabited all the counties of England centuries ago. Different methods have produced the various breeds, for instance it appears from what records we have that in the South of England the Chinese pig was imported, and the cross with the native pig, amongst others, produced the Hampshire, and there are other similar cases; but the authorities seem generally to agree that the Large White Yorkshire breed is descended practically uncrossed from the native pig.

Shelter and ample supplies of nutritious food have done their share in the past, but one of the greatest factors in fixing and improving the breeds has been the Yorkshire and Lancashire Agricultural Societies during the last century. Pig racing, as pig showing was known nearly a century ago in the North of England, was a very solemn institution, and we are told the vast majority of the rustics never got beyond the pigs and the poultry. Hunters were a drag in their eyes, and Booth and Bates cows were wholly lost to them. It is difficult to estimate the good these local shows have done for pig breeding, a hobby that appears to have applied particularly to the inhabitants of the densely populated industrial districts of these counties; every village had its little event, and there was scarcely a town without a pig and poultry show at which valuable prizes were offered for pigs the property of working men. At the Keighley Show, for instance, 30*l.* was given for prizes in the pig classes, and for this forty or fifty pigs, of about 300*l.* in value, would compete. The pride in their breed is apparent when any of the pedigrees kept by the Yorkshire pig fanciers of those days, many of which are in existence, are examined, for they generally end with "by Yorkshire man."

The only cross that authorities seem generally to agree as having been used to improve the Yorkshire pig was the Leicester, which they say was improved by Bakewell on the same lines on which he improved his long-horned cattle and Leicester sheep. This, however, does not seem likely, as Bakewell's pigs were black. However, we find in the Smithfield Club records that Mr. Williams' improved Leicesters, which were white pigs, won the Gold Medal in 1854.

It may safely be assumed, therefore, that the Large White Yorkshire pig is at all events the nearest related to the original native breed; any crosses that may have been introduced from other counties, such as Leicestershire, probably originated from the same native stock. In speaking of the Yorkshire pig, the Large Cumberland, which was practically the same animal, is of course included.

In 1868 the R.A.S.E. provided classes for a Large White breed and a Small White breed at its Leicester Show; and in the former case all the entries came from the North of England, suggesting that the breed had not yet become popular in the South. It was not until 1892 that the R.A.S.E. provided classes for Large White pigs eligible for entry in the N.P.B.A.'s Herd Book—a society which issued its first volume in 1885, prior to which date serious pedigrees had been kept only by a few enthusiasts. In the records of the London Smithfield Club we find that classes were provided for "Large White breed" in 1886, whereas in 1880 the classes were for "Large White breeds and Small White breeds," and in 1879 for "White breeds" only. The first appearance of Yorkshire pigs in the Championship of the London Smithfield Club's Shows was in 1864, when the winners were described as "Yorkshire and Cross."

Yorkshires do not again appear as winners of the Champion Plate till after 1873. Most of the winning pens from 1846 to 1873 were described as "Improved" Dorsets, "Improved" Chiltern, "Improved" Leicester, "Improved" Hampshire, &c.: the Yorkshire alone were escaping the necessity of adding the word "improved" to their native breed, being in many cases the foundation of the so-called "improved" breeds, as, for example, in the "Improved" Suffolk, "Improved" Middlesex, the Coleshill, the Prince Alberts or Windsors, which if not founded on the Yorkshire stock were merely pure "Yorkshires" transplanted and renamed.

To Yorkshire, Lancashire, and Cumberland should be given the chief credit in the past for having improved the native breed of pigs, and produced the Large Yorkshire, now called the "Large White." In later years the chief strongholds of the pure Large White breed have been Lancashire, Nottinghamshire, and a large area around Peterborough, but the breed has been ubiquitous for a considerable time, and good specimens are to be found almost anywhere; whilst a considerable and continuing increase in the number of entries of Large White pigs in the Herd Book of the National Pig Breeders' Association is one indication of the increase of breeders of pedigree animals. In 1885, when the first volume of the Association's Herd Book was issued, there were 113 entries of Large White pigs, and in the last volume 1,783. It is also to the credit of the breed that 2,274 export pedigree certificates have been issued by the Association during the last nine years for pigs exported to the Colonies and foreign countries: the chief importing countries being as follows:—Russia, Germany, Austria, South America, Canada, and Switzerland.

The accompanying copy of an old painting of a Large Yorkshire boar gives a very fair idea of the breed about the year

1845, from which it will be seen on comparison with the photograph also given of a modern representative what great strides have been made in establishing quality right through the animal without sacrificing size. The present Large White pig is the result of great skill and judgment on the part of the breeder who has produced an animal with all the old qualities of hardiness, size, and prolific breeding propensities, but without the coarseness and late maturity of some seventy years ago.

We are told by Youatt, "The old Yorkshire pig was a large narrow animal, with a strong coat of white hair, with a few pale blue spots on the skin, the hair on the spots being white; it had a long head, great ears, long legs, and was very strong



FIG. 1.—Large Yorkshire Boar. About 1845.

in bone, it was a long time coming to full size, and could be fed to upwards of 800 lb., it was and is still very hardy and a very prolific breeder." The weight mentioned by Youatt as the feeding capabilities of the Yorkshire pig of these days or a little later was a very moderate estimate, as he records that in 1856 at the Rotherham Show a Yorkshire sow was exhibited which weighed 11 cwt. 2 qr. 27 lb., and in 1858 at the North-allerton Show the above sow's half-sister scaled 11 cwt. 2 qr. 17 lb. In more recent years amongst other Large White pigs may be mentioned "Bottesford Rover," who weighed 10 cwt. 3 qr., and "Walton Topsman," who weighed 10 cwt. 1 qr. These great weights are still to be found at the fat stock shows where classes are provided for aged pigs. At the York Show three years ago a sow was exhibited which

weighed very little short of 11 cwt. Boars and sows are also to be seen at the summer breed shows scaling little short of 9½ cwt. each, and sometimes even more, which, if fatted to fat stock show condition, would weigh well over 10 cwt. These cases are, of course, exceptional rather than the rule, but they go to show that the great weights obtained by the Yorkshire pigs of old have not been lost to-day, at all events in some herds.

To have been able to retain this great weight in the modern Large White Pig, together with numerous improvements, has stood its breeders in great stead, and that reason more than any other has accounted for the great demand for this breed, not only in every county in England, Scotland, and Ireland, but in almost every country in the world. No other breed of pig is in such demand for crossing and improving purposes as the Large White, due in a great measure to its size, though this point is one that is very apt to be forgotten by some Large White breeders, who produce arguments in favour of what they call compact pigs with fine bone. The arguments are, of course, obvious if breeding only for the butcher, but breeders of pure bred stock, which must also be suitable for improving other breeds when crossed with them, must study another side of the question if they are to retain the demand both at home and abroad.

Many breeds of pigs if allowed to breed together produce bladders of lard with no sides of bacon about them, and which feed into specimens of inferior weight. The Large White, be he worthy of the name, will, if crossed, lift these creatures into respectable animals having sufficient frame to build up sides of lean bacon of the highest quality, with legs of sufficient strength to carry them when fat. The aim of the Large White breeder should be, then, to breed animals of the greatest size possible, having sufficient flat bone with straight legs to carry the animal when fully grown, and with deep sides, deep sprung ribs and clean shoulders, straight back, good hams, and, one of the most important points of all, plenty of length. A breeder who can produce a good large specimen will have more buyers than he knows what to do with, British and foreign, no matter what the general trade is like at the time; but let him who breeds medium sized pigs with all other desirable qualities try to make a good price of his pig, meaning, of course, a pedigree price, and he will experience the greatest difficulty, as similar pigs can be bred by any one, by the cart load, so to speak. What is generally true of horses, cattle, and sheep, namely, that it is very easy to breed good "little 'uns," but it is a very different matter to breed good "big 'uns," applies very strongly to Large White pigs. Before leaving this question of size, which, in our opinion, is the most important



Phoca penicillata

FIG. 2. Large White Bear "WORSLEY TUCK 2811".
The property of SIR GILBERT GREENALL, Bt., C.V.O., First Baronet, 1913.

of all, provided that the other essential points go with it, it may be mentioned that the success of the late Lord Ellesmere's Worsley herd was attributed to the fact that "size with quality, but quality alone at no price," was always the governing idea. That this acted well from a financial as well as a showyard point of view may be illustrated by the fact that in the last ten years of its existence less than two per cent. of the pigs bred in the herd were sold to the butcher, the remainder selling at pedigree prices, and never once was difficulty experienced in selling all the pigs desired.

A Large White pig of what we conceive to be the proper type is anything but "an ungainly brute unable to move," as the advocates of the half Middle, half Large White type have described it. If the weights of the winners of the championships of the various breeds and cross-breeds during the last eight years at the Smithfield Club's shows be examined (earlier particulars are not at the moment available), it will be found that the Large White heads the list for the greatest daily gain, namely, 1·8 lb. per day from date of birth to the time exhibited, the other breeds being as follows: Middle White 1·5, Large Black 1·7, Berkshire 1·5, Tamworth 1·6, Lincoln 1·7. This difference may not seem great, but if worked out for over three hundred days it is considerable and worthy of notice.

In holding up the character of the typical Large White breed, we may mention that typical Large White breed specimens have won the supreme championship over all breeds at the London Smithfield Club's Shows three times out of the last seven exhibitions. Where then is the reproach that he is an ungainly helpless brute?

Finally, it is therefore suggested for the consideration of breeders that they should breed for size with all true Large White characteristics which have been described, and that they should have nothing to do with the short backed short legged finely drawn specimens that some breeders are so apt to be satisfied with, but which will never lift their herd out of the order of mediocrity. Short legs are rather a disadvantage than a fault. A very short-legged sow has great difficulty in moving comfortably about just before pigging and when in milk, and is apt to damage her hind teats. A medium length of leg can be no disadvantage, and ensures easy movement under all conditions. Among other qualities which specially distinguish this breed is the excellence of the great sides of bacon which it produces. In support of this it may be mentioned that Messrs. Harris, of Calne, distribute large numbers of Large White boars for improving the bacon-producing capabilities of the local breeds of pigs in the south-west of England, and will use no other breed for this purpose.

When selecting young stock, preference should be given to those that have the largest frame, rather long on the leg, and with the longest backs provided they are typical in other respects, remembering that a Large White pig grows very rapidly, and must not be expected to fatten, unless forced, until it is three parts matured, and that when it does, it will deepen and fill up what had appeared a rather alarming distance between the ground and underline. The points of a typical Large White pig should be:—

Colour.—White, free from black hairs, and free as possible from blue spots on the skin.

Head.—Moderately long, and slightly dished when fully grown, long in proportion to size of animal and straight when half-grown, snout broad, jaw not too heavy, wide between ears and eyes, the latter as bold as possible.

Ears.—Long, thin, fringed with fine hair, carried firm and erect when young, and slightly inclined forward when fully grown.

Neck.—Long and proportionately full to shoulders.

Chest.—Wide and deep.

Shoulders.—Perfectly free from coarseness, lines, or wrinkles, level across the top.

Legs.—Straight, and well set, level with outside of body, sufficiently long to keep the body under all conditions quite clear of the ground when fully matured, appearing rather long when young, bone flat, and rather large in boars and moderately large in sows, pasterns of moderate length, strong and springy, feet strong, even, and wide.

Back.—Long as possible, level and wide from neck to rump (not tapering off to hind quarters, hollow, or tied behind shoulders), loin broad.

Tail.—Set moderately high, stout, long, with fine tassel of hair.

Sides.—Deep, and ribs well sprung, belly full but not flabby, with straight underline, twelve or more sound teats in females, flank thick and well let down, quarters long and wide, hams broad, full, and deep.

Coat.—Long, and moderately fine.

The pig should be perfectly free from wrinkles all over, and be able to walk at all times freely and without effort.

The special qualities of the breed may be summed up, great size with quality, very rapid growers on moderate rations, and when matured, rapid feeders, producing the finest sides of lean bacon and hams. Very prolific breeders and the best of mothers. Hardy and adaptable to almost any climatic condition. Prepotency of sires.

The following are weights and measurements of well grown specimens of Large White pigs :—

Boars	Height at Shoulder	Length	Weight
6 months old . . .	30 in. . .	50 in. . .	3 cwt.
9 " . . .	34 " . . .	55 " . . .	4½ " . . .
12 " . . .	36 " . . .	62 " . . .	5 " . . .
18 " . . .	38 " . . .	72 " . . .	6½ " . . .
30 " . . .	43 " . . .	78 " . . .	9½ " . . .
Sows			
12 months old . . .	35 in. . .	55 in. . .	5 cwt.
18 " . . .	38 " . . .	72 " . . .	6½ " . . .
30 " . . .	39 " . . .	74 " . . .	9½ " . . .

The length was taken from between the ears to root of tail. The girth may be taken in well fed specimens to be the same as the above lengths.

Management. With regard to the age at which young sows should be mated, no hard and fast rule can be laid down, as there are so many points which have to be taken into consideration. Large White breeders are, however, relieved of one difficulty that attends many of the other breeds, viz., the fear that if the young sows be left to grow and not served early they will run to fat, in which case difficulty might arise in getting them to breed. Large White pigs of the correct type, however, will continue to grow and not run to fat unless unduly forced. In determining when gilts or young sows are to be served, special care should be taken to mate them if possible to farrow down at a favourable time of the year, when warm climatic conditions will assist them to finish off their litters well with as little tax on themselves as possible. The young sow should be spared the necessity of producing the extra quantity of milk that the young pigs would demand in cold weather, which, if she be unable to provide, would prevent the litter growing as fast as they might do. The best age to mate young gilts is at about ten or eleven months, or even a month or so older, unless they are particularly forward, so that the animal has plenty of time to grow, and consequently is sufficiently strong to stand the strain of her first litter without being pulled to pieces. With the first litter it is advisable to keep the young pigs on the gilt until they are twelve weeks old, taking them away during the day; by this arrangement the gilt will not come in season, and so will have a good rest before her system is called upon to produce a second litter. It is most necessary to nurse the young sows during the early part of their life, and remembering that they will have to carry on the reputation of the herd for some six or seven years or more, it is not much to ask the indulgence of a few months at the commencement of their breeding career.

For a first litter, eight to ten pigs is plenty for a young sow to rear. After that, whilst there is no necessity to restrict the numbers for the sow's sake, it is doubtful policy in the long run to struggle with a few weak pigs when the rest of a large litter are strong. It is questionable at any time if rearing the weeds of a litter pays, unless the sow is an exceptionally good one.

In the case of show sows great pains should be taken to prevent the last pair of teats being appropriated by any of the young pigs, if the teats are drawn by occasionally holding the weakest pigs of the litter, who have already appropriated a teat, for the first day or two, till the supply of milk in these teats gradually decreases, the shape of the sows' underline will be preserved, and this in many cases would be completely spoilt if the pigs were allowed to suck them. This point is mentioned as so many good Large White sows are spoilt by neglect during the first few days after farrowing.

Large White pigs are great grazers and too much outdoor life cannot be given them, even when only a few days old. Provided the weather is dry, they should be got out if only for a short time, but when a few months old, unless it is teeming with rain or a hard frost, the pigs should always be out. The danger from frost is not so much the cold, but the fear that the pig will slip and break a leg. There is generally no difficulty in arranging for the young gilts and old sows to run out: covered sheds with an open front in enclosed fields are all that is necessary. The old sows should, of course, be kept separate from the young gilts on account of the injuries that the former might inflict on the latter, and for convenience of feeding, as the young pigs will of course need better food to grow them than the mature sows, who will do well with a plentiful supply of clean fresh water, grass, and one feed per day of Indian corn and peas thrown broadcast over the field: every grain of these the pigs will pick up and get healthful exercise in the search.

With properly fixed rings in their snouts little damage will be done to the field. In hot summer weather it is most desirable that the pigs' fields should have as much shelter from sun as possible, otherwise their skins will get red and hard, and it will take some months to get them into sale or show form after they have got into such a condition.

It is hardly necessary to mention that the sows should be taken away from the others some little time before they are due to farrow, and placed in the sty in which they are to pig, but they should have the opportunity of exercising themselves in a small paddock, and not suddenly have to change their mode of living at such a critical time.

The keeping of boars is naturally attended with greater difficulties than in the case of sows. At the age of about four or five months they will require a sty to themselves if they are to be done properly, and if possible this should be some distance from the sows' places. In the case of show boars, from the age of six months they are better kept quite away from the sight or smell of any other pigs. Boars should be allowed to take plenty of exercise in a grass field and be kept in hard healthy condition, not too fat, but certainly not as thin as a herring as they are sometimes seen, the owner believing they are more prolific in such a condition, trained to the last ounce like a Derby candidate.

In a short article of this description it is of course quite impossible to go fully into the subject of feeding and housing of pigs, but rather than pass these subjects altogether a rough idea may be given of the system that was practised in the late Lord Ellesmere's herd at Worsley. The sows were kept in open sheds and large yards, having access to grass fields into which they were turned practically every day; their staple food was cooked kitchen refuse, which was carted from Manchester hotels daily; this made most excellent pig food, being boiled up in large coppers two or three times, the fat being skimmed off after each boiling (a most necessary operation); with this food was mixed bran and a very small allowance of "sharps" or "thirds" flour. If there was not a sufficient allowance of green food in the kitchen refuse, then turnips and cabbages were added, and occasionally boiled mangold or potatoes would be given in place of the swill, by which name the kitchen refuse was known.

The younger gilts were kept in similar yards adjoining the main piggery buildings, in lots of forty or fifty, where they were handier for feeding; these pigs had the same food as the sows, with the addition of barley meal and boiled Indian meal. It was found that a large proportion of swill was not good for young pigs. In special cases for conditioning purposes boiled oatmeal, pea meal, and bean meal was given, a frequent change of diet being found to be a good thing. The young pigs were fed four times a day at first, reducing to twice a day as they grew up. Show pigs, however, require little and often, with opportunities of rest and exercise between meals which should commence early and end late in the day. In all the houses, whether in yards or boxes, ample light and ventilation was provided on both sides of the buildings and in the roofs, and it was found nearly impossible to give too much air and light provided that draughts were avoided.

The box floors were nearly all red brick on edge, grouted in on concrete foundations, brick walls faced with cement

plaster, and slated roofs well rendered. Such places were found very easy to keep perfectly clean and sweet. In the farrowing boxes places were provided in the corner where the young pigs could be fed separately from the mother, and of course rails 8 in. from the wall and floor to prevent the sow from lying on her pigs.

The stock boars were fed much the same as the old sows, but they were kept in separate cotes away from other pigs. The show boars lived in roomy houses out in the fields, 150 yards or more from all other buildings. These pigs were turned to exercise every day in the field in which their box was situate, the younger boars being kept in separate adjoining cotes with small paddocks near by, into which they could be turned for four or five hours daily. With the foregoing system it was found that one man could look after a considerable number of pigs, as having all the female, and the male pigs under four and a half months old, running in open yards no cleaning out was necessary; they were bedded down with the long straw that was daily taken out of the boxes that contained sows with litters, or boars, the manure being periodically cleaned out of the yards.

It is not possible to secure success unless the greatest care is taken in regard to minutest detail as well as to the broader points, and these few notes have been penned in the hope that they may be of some slight service to those interested in the improvement of our native breeds of pigs.

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CALF-REARING.

AN EXPERIMENT

CONDUCTED AT THE

WOBURN EXPERIMENTAL FARM, 1912-4.

THE subject of rearing calves from birth is one of great importance, and it was therefore thought well, by the Chemical and Woburn Committee of the R.A.S.E., to institute some experiments upon it at their own farm. The recent acquisition of a new holding consisting of about fifty acres of grass land and known as "Charity Farm," provided a good place for such work, especially as buildings with a number of pens suitable for calves had been erected there, and had been made use of in connection with the Tuberculosis Experiments recently concluded.

It was decided, in the first instance, to begin with spring-born calves, and to purchase these, as is generally done, in the open market. This was accordingly carried out, twenty calves being purchased, when they were two to three days old, in Leighton (Beds.) market. They were all bull calves of the Shorthorn breed, and cost 2*l.* 6*s.* apiece.

In deciding upon the foods which were to be given, regard was had largely to the fact that the main problem was how skimmed or separated milk could be best utilised. It is universally recognised that nothing does as well for calves as whole milk, but, on the other hand, this is far too expensive. Largely because of this, a number of special foods have been brought on the market to take the place of milk, and are variously known under such names as "Milk Substitute," "Calf Meal," &c. It was impossible to give a trial to all of these, and accordingly one was selected which was fairly representative of the class of "Calf Meals," and which enjoys a large sale and good reputation. The other foods chosen were, besides whole milk, combinations of separated milk with such materials as cod-liver oil, linseed and oatmeal, and crushed oats. The price at which whole milk could then be obtained was 7*d.* a gallon, and that of separated milk 2*d.* per gallon. It was decided to divide the twenty calves into five lots of four each, and to feed the several lots as follows :—

- Lot 1. Cod-liver oil and separated milk.
 " 2. A purchased "calf meal."
 " 3. Gruel (linseed and oatmeal) with separated milk.
 " 4. Whole milk.
 " 5. Crushed oats (given dry) and separated milk.

The cod-liver oil for Lot 1 was stirred up well with the separated milk, the idea being that the fat removed in the case of whole milk, by separating it, could be thus restored. The "calf meal" was used for Lot 2 strictly in accordance with the directions issued with its sale; the "gruel" of Lot 3 consisted of 1 lb. linseed and 6 lbs. fine oatmeal, which was first made up with 1 gallon of water and then the separated milk added; with Lot 5 the oats were home-grown and merely bruised in the farm mill, but not ground fine. They were given *dry*, and the separated milk by itself, the two not being mixed or made up into a gruel.

For the first three weeks after coming on to the farm all the calves had alike whole milk and nothing else; on the average they took a gallon per head daily. They were then weighed, and were divided up, as evenly as possible, into five lots according to their weights, general character, &c., and the experiment proper began.

The costs of the several foods were: whole milk 7*d.* per gallon, separated milk 2*d.* per gallon, cod-liver oil 5*s.* 6*d.* per gallon, "calf meal" 15*s.* per cwt., oatmeal 17*s.* per cwt., linseed 24*s.* per cwt., crushed oats (home-grown) 7*s.* per cwt.

The several foods were given to the respective lots for *nine* weeks, this being, accordingly, the duration of the first part of the experiment. The calves were then weighed, their age being twelve weeks. The following are the details as regards the method of feeding and the quantities of food given:—

Lot 1.—Cod-liver Oil.

Lot 1 (four calves), during the first three weeks (March 26 to April 15) consumed 86 gallons of whole milk, costing 4*s.* 2*16d.* per calf per week. They were weighed April 16, and started on their special diet. Whole milk was gradually replaced by separated milk, the four calves taking for the first six days $4\frac{1}{2}$ gall. whole milk and $1\frac{1}{2}$ gall. separated milk daily, with eight table-spoonfuls daily of cod-liver oil stirred up with the milk. After a fortnight the whole milk went down to $2\frac{1}{2}$ gall. and the separated milk up to 3 gall. daily, and after three weeks the four calves were receiving all separated milk (6 gall. daily per lot) and so continued till the close of the nine weeks, the cod-liver oil being increased after four weeks to twelve table-spoonfuls daily. The total food consumed during this period of nine weeks by the four calves was: cod-liver oil 2 gall., whole

milk 59 gall., separated milk 307 gall.—total cost 4*l.* 16*s.* 7*d.*, or 2*s.* 8-19*d.* per calf per week. With the preliminary three weeks on whole milk the cost comes to 7*l.* 6*s.* 9*d.* for the twelve weeks, or 3*s.* 0-68*d.* per calf per week. The live-weights at the respective dates were:—

LOT 1.—Cod-liver Oil.

	April 16			June 18			Gain in 9 weeks		
	C.	q.	lb.	C.	q.	lb.	C.	q.	lb.
<i>a</i>	1	0	23	1	3	9	0	2	14
<i>b</i>	0	3	19	1	3	4	0	3	13
<i>c</i>	1	0	2	1	3	9	0	3	7
<i>d</i>	1	0	10	1	3	16	0	3	6
	4	0	26	7	1	10	3	0	12

This, accordingly, gave a gain of 9-66 lb. per calf per week, each pound gain in live-weight being obtained at the cost of 3-33*d.*

Lot 2.—Calf Meal.

The four calves had, as before, whole milk for the first three weeks (March 26 to April 15), averaging 1 gall. per head daily. After weighing on April 16, they took for the first week 2½ gall. of whole milk and 1½ gall. of separated daily for the four calves, along with 2 gall. of calf meal. The whole milk was gradually reduced, and after three weeks the four calves took only 4 gall. daily of separated milk with the 2 gall. of calf-meal daily. The total food consumed in the nine weeks was: calf meal 112 lb., whole milk 37 gall., separated milk 212 gall.—total cost 3*l.* 11*s.* 11*d.*, or 2*s.* per calf per week. With the preliminary three weeks' feeding on whole milk the cost came to 6*l.* 2*s.* 1*d.* for the twelve weeks, or 2*s.* 6-52*d.* per calf per week. The live-weights were as follows:—

LOT 2.—Calf Meal.

	April 16			June 18			Gain in 9 weeks		
	C.	q.	lb.	C.	q.	lb.	C.	q.	lb.
<i>a</i>	1	0	8	1	3	6	0	2	26
<i>b</i>	1	0	16	1	3	26	0	3	10
<i>c</i>	0	3	26	1	2	15	0	2	17
<i>d</i>	1	0	5	1	2	12	0	2	7
	4	0	27	7	0	3	2	3	4

This gave a gain of 8-66 lb. per calf per week, each pound gain in live-weight costing 2-77*d.*

Lot 3.—Gruel.

As before, the four calves had whole milk for the first three weeks (March 26 to April 15), 1 gall. per head daily on the average. They were weighed on April 16, and thence received their special food, the oatmeal and linseed being made up into a gruel with water. For the first week the lot of four had $4\frac{1}{2}$ gall. whole milk with $1\frac{1}{2}$ gall. separated milk daily, and $\frac{1}{2}$ gall. daily of gruel. The whole milk was reduced gradually, and the separated milk and gruel increased. After three weeks they were taking 4 gall. daily of separated milk and $1\frac{1}{2}$ to 2 gall. of gruel daily for the lot of four. During this period one calf began to show signs of scouring, and, as it had eventually to be removed from the experiment, it is left out of account in the final reckonings. The total food consumed in the nine weeks by the four calves was: oatmeal 84 lb., linseed, 14 lb., whole milk 57 gall., separated milk 224 gall.—cost 4*l.* 6*s.* 4*d.*, being 2*s.* 4*7*/*7**d.* per calf per week, or, reckoning the three weeks' preliminary feeding on whole milk, 6*l.* 16*s.* 6*d.*, being 2*s.* 10*d.* per calf per week. The live-weights were:—

LOT 3.—Gruel.

	April 16			June 18			Gain in 9 weeks		
	C.	q.	lb.	C.	q.	lb.	C.	q.	lb.
<i>a</i>	1	0	8	1	2	27	0	2	19
<i>b</i> ¹	0	3	27	1	2	0 ¹	0	2	1
<i>c</i>	1	0	14	1	3	11	0	2	25
<i>d</i>	1	0	6	1	2	19	0	2	13
	4	0	27	6	3	1	2	2	2

¹ Calf scouring.

Leaving out the calf that was not well, this gives a gain of 225 lb. for three calves during the three weeks, being 8*3*/*3* lb. gain per calf per week, each pound gain in live-weight costing 3*4*/*5**d.*

Lot 4.—Whole Milk.

This lot were purchased a week later than the foregoing, so that their preliminary feeding began on April 3. They were weighed on April 23, and continued for the next 9 weeks on whole milk, taking on the average a gallon each daily at first, and then going up to $1\frac{1}{2}$ gall. each after a fortnight's time. In the 9 weeks they consumed, in all, 356 gall. of whole milk, costing 10*l.* 7*s.* 8*d.*, being 5*s.* 9*2*/*2**d.*, per calf per week, or, with the preliminary feeding, 12*l.* 17*s.* 10*d.*, being 5*s.* 4*4*/*5**d.* per calf per week. The live-weights were:—

LOT 4.—Whole Milk.

	April 23			June 25			Gain in 8 weeks		
	C.	q.	lb.	C.	q.	lb.	C.	q.	lb.
<i>a</i>	1	0	11	2	0	11	1	0	0
<i>b</i>	0	3	23	1	3	24	1	0	1
<i>c</i>	1	0	11	2	0	16	1	0	5
<i>d</i>	1	0	24	2	1	4	1	0	8
	4	1	13	8	1	27	4	0	14

This gave a gain in live-weight of 12·83 lb. per calf per week, each lb. gain costing 5·39*d*.

Lot 5.—Crushed Oats.

These four calves were bought a fortnight after the "whole milk" ones, so that the preliminary feeding took from April 16 to May 6. They were weighed on May 7 and put on their diet. At first they were given whole milk only—5 gall. daily amongst the four. The crushed oats were given them, as they would take it, a handful at a time. For the first six days the lot of four took 1 lb. of oats daily. Then the whole milk was reduced, separated milk was brought in, and the oats increased to 2 lb. daily amongst the four. After 24 days, whole milk was dropped altogether and 6 gall. of separated milk given daily, with 4 lb. oats daily, to the four. It is of importance to note that the crushed oats were always given *dry* and never mixed up with the milk or made into a gruel.

During the nine weeks the four calves consumed 208 lb. crushed oats, 66 gall. whole milk, and 296 gall. separated milk, costing in all 5*l*. 0*s*. 10*d*., being 2*s*. 9·61*d*. per calf per week, or, reckoning the preliminary feeding, 7*l*. 11*s*., being 3*s*. 1·75*d*. per calf per week. The live-weights were :—

LOT 5.—Crushed Oats.

	May 7			July 9			Gain in 8 weeks		
	C.	q.	lb.	C.	q.	lb.	C.	q.	lb.
<i>a</i>	1	0	21	2	1	4	1	0	11
<i>b</i>	1	1	3	2	1	11	1	0	8
<i>c</i>	1	0	10	2	0	7	0	3	25
<i>d</i>	1	0	8	2	0	23	1	0	15
	4	2	14	8	3	17	4	1	3

This gave a gain of 13·30 lb. per calf per week, each lb. gain in live-weight costing 2·52*d*.

The following table gives the results in comparative form:—

	Food.	Cost per calf per week		Gain per calf per week	Cost per lb. gain in live-weight.
		s.	d.	lb.	s.
Lot 1	Cod-liver oil	2	8-19	9-66	3-33
" 2	Calf meal	2	0	8-66	2-77
" 3	Gruel	2	4-77	8-33	3-46
" 4	Whole milk	5	9-22	12-83	5-39
" 5	Crushed oats	2	9-61	13-30	2-52

From this table it will be seen that the crushed oats gave the highest gain in live-weight and at the lowest cost per lb. of increase. The next highest gain was with whole milk, but the cost, it will be noticed, was much increased. Between the other feedings there was not much to choose.

It should be here mentioned, that, with the exception of one animal in Lot 3 (gruel) which took to scouring and had eventually to be left out of the experiment, all the calves remained perfectly well during the preliminary and special feeding.

The calves, as they finished their nine weeks' special feeding, and now being twelve weeks old, were turned out into the yard and all fed alike with separated milk, a little linseed cake and crushed oats. On July 14, milk was given up, and on July 18, the calves were all turned out to run in the fields, being given linseed cake, crushed oats and hay. On September 1, one calf—from the crushed oats lot—was found to be ill and dying, the case, unfortunately, proving to be one of anthrax. None of the other animals were, however, attacked. On September 17 (after 91 days further feeding) the calves were again weighed. On September 23 all were castrated,¹ and then fed on throughout the winter, being out in the fields in daytime and coming into the yard at night, where they had linseed cake with a little cotton cake, hay and sliced roots. On February 5, 1913, having completed twenty weeks since the last time of weighing, the bullocks were again weighed.

They were run out on the pastures during the spring, summer, and early autumn of 1913, and were again weighed on November 6, 1913, when they were once more put up in the yards for fattening off.

For the entire period from the close of the nine weeks of special feeding the animals were all treated exactly alike, and received the same foods; consequently such differences as were observable may fairly be put down mainly as the result of the early feeding.

¹ This operation had been purposely delayed in order not to interfere with the experiment in its earlier stages.

As they became fit for the butcher the bullocks were weighed and then sent off to be killed, a careful record being kept of the food consumed up to the time of their slaughter. Their carcass-weights were also recorded, and notes were made by the butcher of any features of interest arising from the examination of the carcasses.

In Table I. are given the respective weights of each lot at the different dates upon which the bullocks were weighed, viz., (1) April 16, 1912 (or April 23, or May 7); (2) June 18, 1912, or June 25, or July 9); (3) February 5, 1913; (4) November 1, 1913; (5) at date of slaughter (February to May, 1914).

In Table II. are given the initial and final weights of each individual bullock, with the average gain in live-weight of each lot, and the price realised for each animal.

In Table III. are given the gains per head for each lot over the several periods, and in Table IV. the cost of feeding per head, from the very commencement, including the preliminary three weeks' feeding with whole milk, the special feeding with the different foods (nine weeks), and the subsequent cost, inclusive of grazing and feeding in the yards, up to the time of slaughter. The original cost of the calf is added, and it is shown what were the respective gains realised on the sale of the bullocks.

The results (page 56) obtained at the end of the period of special feeding (twelve weeks from the commencement) show that up to that time crushed oats used with separated milk gave the largest increase in live-weight, and this at the lowest cost per lb. of gain. Tables I.-IV. give the subsequent history, and show how far the influence exercised in the early period of feeding was felt throughout the subsequent feeding, and also how, when the total cost of feeding (until the animals came to be slaughtered) was set against the cash return on the carcasses, the account stood.

As remarked before, the animals as a whole remained in excellent health. Two only of the original twenty were not carried on throughout the entire experiment, one being No. 10 of the "gruel" lot, which suffered from scour, and the other No. 17 of the "crushed oats" lot, which succumbed to anthrax, which, however, could in no way be attributed to the special feeding.

Table I. shows that crushed oats stood ahead of all the other foods, whether final live-weight on the farm or carcass-weight be taken. Whole milk stood a good second, the animals of this lot "dying" better than those of the "gruel" lot, though the average live-weight was much the same in the two sets. Calf meal came out slightly better than cod-liver oil, both in average live-weight and in carcass-weight.

Calf-rearing Experiment.

TABLE I.—Weights of Bullocks at the different periods from the commencement to the close of the experiment.

Lot	Food	(Commence- ment) April 16, 1912	June 18, 1912	Sept. 17, 1912	Feb. 5, 1913	Nov. 6, 1913	Final Weights Feb. to May, 1914			Average Weights per head in each lot	
							Live weight	Dead-weight, Smithfield stones (8 lb.)	C, q, lb.	Live weight	Dead- weight
1	Cod-liver oil.	C, q, lb. 4 0 26	C, q, lb. 7 1 10	C, q, lb. 13 2 4	C, q, lb. 21 2 21	C, q, lb. 34 3 22	C, q, lb. 42 3 26	a, lb. 528 2	C, q, lb. 10 2 27	a, lb. 82 0	b, lb. 82 0
2	Calf meal	4 0 27	7 0 3	12 2 26	20 1 18	33 0 12	43 1 10	332 2	10 3 9	83 0	83 0
3	Gruel (3 bullocks only)	3 1 0	5 1 1	9 0 11	16 2 16	26 0 21	34 0 2	252 6	11 1 10	84 2	84 2
4	Whole milk	4 1 13	8 1 27	14 2 1	23 3 27	37 1 17	45 1 4	346 4	11 1 8	86 5	86 5
5	Crushed oats (3 bullocks only)	3 1 21	6 2 13	10 2 26	17 3 14	27 3 23	36 0 22	275 5	12 0 7	91 7	91 7

TABLE II.—Initial and Final Weights of each Animal, with Price realised (at 5s. per 8 lb. stone).

Lot	Food	No. of Bullock	Initial weight, April 16, 1912	Final weight, Feb. to May, 1914		Date of slaughter, 1914	Gain in live- weight (whole period)	Average gain in live-weight per head in each lot	Price realised at 5s. per 8 lb. stone	
				Live weight	Dead weight, skins & flcs.				Per head	Average per head in each lot
				C. q. lb.	7. lb.		C. q. lb.	C. q. lb.	£ s. d.	£ s. d.
1	Cod-liver oil	1	0 9 23	10 14	75 5	Feb. 23	10 3 9	9 2 21	19 15 0	20 10 4
		2	0 9 13	10 8 0	80 0	Mar. 2	9 3 6		21 2 6	
		3	1 0 13	10 3 8	78 6	Mar. 2	9 3 6		19 13 9	
		4	1 0 10	10 1 4	78 6	Feb. 23	9 0 22		22 1 3	
2	Calf meal	5	1 0 8	11 0 16	88 2	April 13	10 0 8	9 3 3	20 0 0	20 15 4
		6	1 0 16	10 1 20	80 0	May 11	9 1 4		21 5 0	
		7	0 3 26	11 1 14	85 0	May 18	10 1 16		19 13 0	
		8	1 0 6	10 1 16	79 0	May 11	9 1 11		21 5 0	
3	Gruel	9	1 0 8	11 0 10	85 0	April 20	10 0 2	10 1 1	21 5 0	21 1 3
		11	1 0 14	11 0 21	83 4	April 20	10 0 7		21 1 3	
		12	1 0 6	11 2 27	84 2	May 13	10 2 21		21 2 6	
		13	1 0 11	10 3 20	84 4	April 13	9 3 5		21 2 6	
4	Whole milk	14	0 3 23	10 3 20	84 0	April 13	9 3 5	10 0 26	22 8 9	21 13 1
		15	1 0 11	12 0 14	89 2	Feb. 17	11 0 3		22 1 3	
		16	1 0 24	12 1 16	86 0	Feb. 16	10 0 10		23 16 3	
		17	1 1 3	12 2 26	93 5	Feb. 10	11 1 21	10 3 19	23 5 0	23 0 6
5	Crushed oats	18	1 0 10	12 0 6	93 0	April 6	10 3 24		22 0 0	
		20	1 0 8	11 1 20	88 0	Feb. 9	10 1 12		22 0 0	

TABLE III.—Average Gain per head daily in live-weight during the several periods.

Lot	Food	1st Period, April 16 to June 18, 1912	2nd Period, June 18 to Sept. 17, 1912	3rd Period, Sept. 17 to Feb. 5, 1913	4th Period, Feb. 5 to Nov. 8 1913	5th Period, Nov. 8, 1913, to close (Feb. to May, 1914)	Whole Period
		lb.	lb.	lb.	lb.	lb.	lb.
1	Cod-liver oil .	1.38	1.90	1.63	1.36	2.0	1.63
2	Calf meal .	1.24	1.75	1.53	1.29	1.58	1.46
3	Gruel .	1.19	1.57	2.01	1.30	1.68	1.55
4	Whole milk .	1.83	2.00	1.90	1.37	1.72	1.66
5	Crushed oats .	1.90	2.19	1.90	1.37	2.70	1.85

TABLE IV.—Cost of Feeding per head in each lot during whole period, and gain per head after selling.

Lot	Food	Special feeding from commencement, including whole milk	Subsequent feeding and grazing	Cost of Calf	Total Cost	Price realised at 5s. per 8lb. stone	Gain
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1	Cod-liver oil .	1 16 8	7 15 4	2 6 0	11 18 0	20 10 4	8 12 +
2	Calf meal .	1 10 6	10 3 4	2 6 0	13 19 10	20 15 4	6 15 6
3	Gruel .	1 14 1½	9 18 11½	2 6 0	13 19 1	21 1 3	7 2 2
4	Whole milk .	3 4 5	8 6 6	2 6 0	13 16 11	21 13 1	7 16 2
5	Crushed oats	1 17 9	8 2 9	2 6 0	12 6 6	23 0 5	10 13 11

From this it is clear that the advantage gained in the early stages by feeding with crushed oats and separated milk, and similarly with whole milk alone, was never afterwards lost.

Accordingly, the important point is brought out that the early feeding has a most marked bearing on the after development of the animal, and that there is a great deal in "giving a good start"—for the influence of this will "tell" all through.

To all appearances the best looking animals throughout were the "whole milk" lot. These had more "bloom" about them than the "crushed oats" lot, though the latter would have been selected by any good judge as the next best lot. There was nothing to choose, in appearance, between the "cod-liver oil" and the "gruel" animals, but undoubtedly the poorest-looking set was the "calf meal" lot, and these seemed to have a heavy and somewhat "staring" look about them not possessed by any of the others. It was remarkable indeed to note how the respective appearances impressed upon the calves by their early feeding were maintained practically to the time of the

slaughter of the animals. It was comparatively easy to go and see the animals out in the field and to pick out, say, three of the four "whole milk" lot and two out of the three "crushed oats" lot, and similarly three out of the four "calf meal" fed animals.

Table II., in addition to giving details regarding the individual animals and the price realised by the sale of each, shows that the average gain per head in live-weight was highest with the "crushed oats," and next highest with "whole milk" and with "gruel."

This table also gives the dates on which each bullock was ready for killing. It will be seen that two out of the three "crushed oats" lot were ready earliest of all, viz., on Feb. 9 and 10, 1914. The next earliest were two of the "whole milk" lot (Feb. 16 and 17), and then two of the "cod-liver oil" lot (Feb. 23), the other two of the last named set finishing only a week later. On the other hand, none of the "gruel" or the "calf meal" lots were ready before April 13, and three out of the four "calf meal" lot had to be kept on till about the middle of May.

There would thus appear to be added advantages to the feeding with crushed oats, as also with whole milk, and similarly with cod-liver oil, in respect of early maturity, an advantage certainly not possessed by either the gruel or the calf-meal.

Taken as a whole, it may be considered very satisfactory to have turned out, as was the case with two out of the three of the "crushed oats" lot, animals fit for slaughter at the age of one year and ten months only. Even those which took longest to fatten ("calf meal") were only two years and two months old.

In Table III. the daily gain per head is set out, and once again it is shown that this was highest with crushed oats and next highest with whole milk.

Lastly, Table IV. gives the financial result as nearly as it can be stated. The animals were not sold individually, but in groups as sent for slaughter. The differences of quality between the best and the worst were not, however, such as to call for any practical difference in the rate per stone which the butcher was willing to give, and it may fairly be taken as 5s. per 8 lb. stone all round. On this basis Table IV. is set out. In the estimate of cost the only item not included is that of "attendance," and against this may be put the manurial value of the food consumed and left as dung.

This table again shows the marked superiority of the "crushed oats" feeding, the highest price and the highest gain being here obtained. "Whole milk" realised the second

highest price, but the cost of feeding was more, and "cod-liver oil" stood second as regards final money return. Then followed "gruel," while "calf meal" gave the lowest return, the longer period of feeding required largely accounting for this.

The Butcher's remarks (summarised) were :—

"Cod-liver oil" lot.—These animals died remarkably well, the average loss being 4·42 per cent. Though small, the beef was of the finest quality, being quite equal to the "crushed oats" lot.

"Calf meal" lot.—These animals died "hard." Average loss 4·26 per cent. The beef was not of the same quality as the other lots, and gave the impression that the animals had been "hard doers."

"Gruel" lot.—These animals were inclined to be "pot-bellied." The average loss was 7·11 per cent. The flesh "set" well and had a good "grain." The animals were inclined to be poor on the backs, though other parts were well covered.

"Whole milk" lot.—Average loss 4·22 per cent. These animals were somewhat disappointing as compared with the "crushed oats" lot and the "cod-liver oil" lot, the flesh not being so firm.

"Crushed oats" lot.—The beef was firm, of an excellent colour, with the fat very evenly distributed through the lean. Average loss 4·8 per cent.

This experiment gave rise to a great deal of interest among visitors to the farm, and, during its progress, the interim reports issued by the Committee were eagerly enquired for, a great deal of correspondence ensuing therefrom, thus fully justifying the Committee in feeling that they were carrying on an enquiry which was of practical benefit to all engaged in calf-rearing.

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THE ISLE OF WIGHT BEE DISEASE.

INTRODUCTION.

AN epidemic among bees in Great Britain, which has become known as the "Isle of Wight Bee Disease," was first brought to public notice in 1906. In that year the bee-keepers of the Isle of Wight complained of a disease which was devastating their apiaries and spreading with considerable rapidity. The epidemic appears to have been first observed in the south-eastern corner of the island in 1904, and to have spread so

widely that in 1908 most of the original stocks in the island had perished. A study of the literature relating to bee diseases in several countries reveals the fact that symptoms essentially similar to those exhibited by bees suffering from the Isle of Wight epidemic, have been known for many years. There is, therefore, every probability that the disease is not a new one occurring in the island. Records testify that the disease was probably present in Derbyshire in 1902, in Cornwall in 1904, and in other districts. Furthermore, many of the extensive losses of bees that have been described since about the middle of the eighteenth century are most likely due to this disease, though they have been attributed to dysentery, paralysis, and various other causes.

In 1907 the present writer was appointed by the Board of Agriculture to investigate the outbreak of the bee disease in the Isle of Wight, but was compelled, owing to taking up an appointment in India, to relinquish the study after a few weeks' work. The observations that were made up-to-date are summarised in a brief report on the subject (Imms, 1907). The Board of Agriculture afterwards secured the services of Dr. W. Malden to carry forward the investigation, who published a report thereon two years later (Malden, 1909).

Subsequently four other observers joined forces with Dr. Malden in order to attempt thoroughly to solve the problems connected with the disease. Of these four investigators, Drs. Fantham and Porter are well-known protozoologists; Mr. G. W. Bullamore is a scientific bee-keeper of wide experience; Dr. Graham-Smith is an able pathologist; while Dr. Malden, it may be added, is thoroughly experienced in the bacteriology of the hive. As the result of the conjoint labours of these five observers, a great deal of valuable information has come to light, and is embodied in the reports published under their names (*vide* Graham-Smith and Others, 1912 and 1913).

SYMPTOMS.

Bees attacked with the Isle of Wight disease exhibit certain symptoms which are now well-known and easily recognisable. No one symptom, however, can be regarded as definitely characteristic of the disease and invariably in evidence. The present writer found that one of the earliest symptoms of the disease is the inability of most of the affected bees to fly more than a few yards without alighting. As the disease progresses the bees frequently can fly only a few feet from the hive, and then drop, and crawl aimlessly over the ground. They may then often be seen crawling up grass stems or up the supports of the hive. In many badly infected stocks great numbers of bees with distended abdomens may be seen crawling over the

ground in front of the hives, frequently massed together in little clusters, while others remain on the alighting board. If the hives be opened, numbers of sluggish diseased individuals will often be met with inside, clustered together round or near the queen, who is usually the last to die. Diseased bees very frequently lose their power of flight altogether, and then crawl about with the extremity of the distended abdomen dragging along the ground; not infrequently the wings are "out of joint," the hind wings protruding obliquely upwards and above the anterior pair. The distension of the abdomen appears to be due to the inability of the bee to fly. The hind intestine becomes loaded with pollen and other material, which is normally voided when the insect is on the wing. If, however, for any cause it is unable to take its cleansing flight the hind gut remains loaded. In some cases, however, diseased bees show symptoms akin to those of dysentery. They discharge their excrements over the combs and on the sides, floor, and alighting board of the hive. Many bee-keepers have informed me that this condition is only present after the winter confinement within the hive. A comb constructed by a diseased stock during the summer does not as a rule reveal any such "dysenteric" symptoms.

The symptoms enumerated are those most commonly observed among bees infected with the Isle of Wight disease, but other and less important indications may also occur. It must be remembered, however, that no single one of these symptoms can be regarded as diagnostic of the disease. The only invariable feature is the death of large numbers of bees and frequently of the whole stock. The mortality is especially prevalent during wet and cold periods and during the winter season. There is evidence to show that the disease may be less virulent during hot dry seasons, and that epidemics are more likely to break out during periods of cold and wet weather. The complaint may often be present when unsuspected, under conditions apparently favourable to the bees rather than to the disease, and only evince its presence by a gradual dwindling of the stock without any apparent cause. It is only when the disease assumes the form of an epidemic that it attracts much notice, and efforts are made to cope with it when the stock is already doomed.

CAUSE OF THE DISEASE.

In 1906 Drs. Fantham and Porter observed a minute one-celled animal parasite in the digestive system of bees obtained from the Isle of Wight. In 1907 they were again successful in finding this parasite, and in the years 1908-10 they obtained it from bees showing symptoms of the Isle of Wight disease

received from five different counties in the south of England. They were also able to demonstrate by experiment that the organism was pathogenic for bees. Dr. Zander, working independently at Erlangen, in Germany, also found a minute organism in the alimentary canal of diseased bees, to which he gave the name of *Nosema apis* (Zander, 1909). This has been subsequently proved to be the same parasite as was discovered by Fantham and Porter. The latter observers have given a very full account of the organism, published in the Zoological Society's Proceedings (Fantham and Porter, 1911), and also in the Reports issued by the Board of Agriculture in 1912 and 1913.

Nosema apis has been found in almost every stock apparently infected with the Isle of Wight disease, and there is, therefore, every reason to regard it as the primary agent responsible for the complaint. This conclusion is further supported by the fact that no other organism has been detected that can be accused of causing the infection. Several authorities claim that microscopic examination of infected bees for the presence of *Nosema* is necessary for definitely diagnosing the disease, the general symptoms not being regarded by them as being sufficiently reliable. A microbe, *Bacillus testiformis apis*, was found by Malden in diseased stocks, but is by no means constantly present, and cannot, therefore, be regarded as the pathogenic agent. If it has any connection with the disease, it is of a secondary nature.

DISTRIBUTION OF THE DISEASE AND ITS PARASITE.

It may be said that the disease is prevalent over the greater part of England and Scotland, and it is principally owing to its severity in the Isle of Wight that attention has been focussed on to it in that locality. Abroad it is known to occur in Germany, Switzerland, and America, and the *Nosema* definitely found to be present in each instance. In Australia, Tasmania, and Canada, *Nosema* has also been detected, but apparently without causing loss to the bee-keepers. With the growth of knowledge of bee diseases, it is probable that the Isle of Wight complaint will be found to occur in a number of other countries where it has not up to the present been recognised.

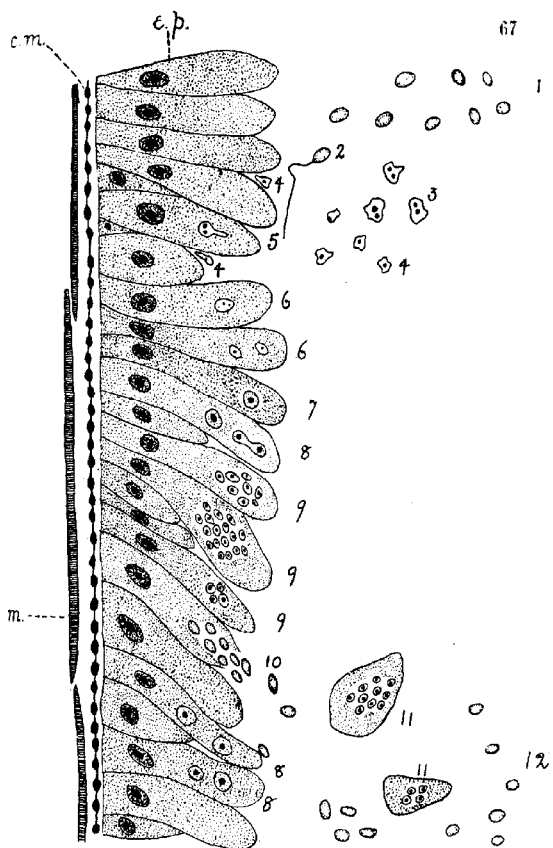
POSITION OF *NOSEMA APIS* IN THE ANIMAL KINGDOM, AND ITS LIFE HISTORY.

Nosema apis belongs to the Protozoa, which are one-celled animals; it has therefore no relationship with bacteria, which are placed in the vegetable kingdom. Many Protozoa are known to cause various diseases, of which malaria and sleeping sickness are well-known instances. An allied species of the same

genus, viz., *Nosema* (*Glugea*) *bombycis*, causes the disease known as Pébrine among silkworms, which was so thoroughly investigated by Pasteur. *Nosema* is placed in that section of the Protozoa known as the Microsporidia, and for this reason the disease has been referred to under the somewhat cumbersome title of "Microsporidiosis." Another and more euphonious name is "Nosema disease," which has been used in America. It is a translation of its German equivalent, "Nosema Seuche," which was given by Zander. Infection of the bee usually takes place by means of spores, which contaminate the food and water. A single *spore* of *Nosema* is a minute oval body $\frac{1}{1000}$ of an inch in length, enclosed in a tough resistant membrane. On being swallowed by the bee, the spore passes into the mid-gut or chyle stomach of the latter. The digestive secretions within the chyle stomach stimulate the spore, and a minute amoeboid body known as a *planont* (meaning a wanderer) emerges therefrom. Each planont may divide and produce daughter planonts, which in their turn can divide again. By this means the parasite adds greatly to its numbers. The planonts wander over the inner surface of the chyle stomach, and eventually penetrate into the cells forming its lining epithelium. Occasionally, however, they make their way directly through the gut wall and pass into the body cavity. When once within the epithelial cells the planonts become passive, rounded in form, and growing at their expense ultimately weaken the wall of the gut. Each planont sooner or later divides into two, four, or even more bodies, which are known as *meronts* (meaning portions or segments). In this manner the *Nosema* further increases its numbers, and it is at this stage the organism is most fatal to the bee.

The meronts, in their turn, may divide and form daughter meronts. After a period of growth, each meront ordinarily undergoes a series of changes which result in its giving rise to a *spore*. The epithelial cells containing the spores are shed into the digestive cavity, where they rupture, thus liberating the spores into the gut. Ultimately the spores pass to the exterior in the faeces of the bee, and are then liable to contaminate the food and water. Along with the latter they can enter the digestive system of healthy bees, and initiate afresh the life-history just described. It is noteworthy that the planonts and meronts, if discharged from the alimentary canal in the faeces, perish immediately. On the other hand the spores, in virtue of their resistant membrane, are able to withstand adverse conditions until they reach a new host bee—they are specially adapted to ensure the continuance of the race.

The parasite is usually restricted to the digestive system of the adult bee. It attacks the chyle stomach and intestine more



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a.D.S. 24

DESCRIPTION OF PLATE.

Diagrammatic representation of a portion of the chyle stomach of the honey bee, showing the life-history of *Nosema apis*. The numbers indicate the different successive stages in the development of the parasite. (Based on the researches of Drs. Fantham and Porter.)

e.p. Epithelial cells lining the chyle stomach. The darker oval bodies are the nuclei of these cells. *c.m.* Circular muscle fibres. *l.m.* Longitudinal muscle fibres. 1. Spores taken in with the food, and seen floating in the cavity of the chyle stomach. 2. A spore with extruded polar filament just prior to giving rise to an amoeba. 3. An amoeba freshly issued from the spore. 4. Daughter amoebulae which become planonts. 5. An amoeba within an epithelial cell of the chyle stomach. 6. Planonts within the epithelial cells. They have withdrawn the pseudopodia and become rounded in outline. 7. A meront within an epithelial cell. 8. Epithelial cells each containing two meronts. In the uppermost of the three cells bearing the number 8, a meront is seen in process of division. 9. Group of daughter meronts within the epithelial cells. 10. Newly developed spores being discharged into the cavity of the chyle stomach owing to the rupture of the epithelial cell. 11. Epithelial cells which have broken away from the walls of the chyle stomach. Daughter meronts are seen within the cells. 12. Mature spores floating in the cavity of the chyle stomach.

frequently than any other part, and weakens and destroys their lining epithelium. The result is that death supervenes. Possibly also toxic substances are produced which hasten the bee's end.

The disease is eminently one of the adult insect, and the *Nosema* has been found in the workers, drones, and queen. Occasionally it has been met with also in the larvæ and pupæ, but is nevertheless not to be regarded as a brood disease.

EXPERIMENTAL INFECTION.

Spores obtained from the bodies of diseased bees have been utilised for infection experiments proving the pathogenic nature of *Nosema apis*. It has been demonstrated that healthy bees contract the disease if fed with honey or syrup to which spores have been added, or with honey which has come from an infected hive. Further experiments have been conducted showing that healthy bees become infected (1) by contaminating their food with the excrement of diseased bees; (2) by placing bees which have died from the disease among them; (3) by confining them in cages which diseased bees had previously occupied; (4) by allowing them to feed on candy which had been previously utilised by diseased bees.

It has further been found that spores present within the bodies of bees, which had died four months previously from the disease, still retain their infective powers. So far as is known infection can only take place through the agency of the spores. If, for instance, the planonts and meronts are discharged from the alimentary canal of the bee to the exterior they perish immediately, and are incapable of inducing the disease. The problem of hereditary infection is of great importance, but I am not aware that any evidence thereon is yet forthcoming. If the queen is capable of transmitting the parasite to the eggs, the young brood would thus be born infected and the disease passed on from one generation to another, as is known to be the case with the *Nosema* of pébrine. Investigation along these lines is extremely difficult, but it is none the less urgently needed.

THE METHODS BY WHICH THE DISEASE IS SPREAD.

There are numerous possible ways by means of which the disease might be spread. Water near the hives infected with bee excrement containing the spores of the disease appears to be a most important factor. Honey, pollen, and wax, if contaminated with excrement containing the *Nosema* spores, are fertile sources of infection. Infection from one hive or apiary to another is effected by the sale of diseased swarms, by the robbing of a diseased colony by healthy bees, and by swarms

occupying old infected hives. Wet weather, especially when accompanied by cold, affords plenty of chances for bees to obtain moisture close to their hives, which becomes contaminated by the excrements discharged on the latter. There is evidence to indicate that partial immunity of stocks happens: such stocks might be difficult to diagnose, though they would at the same time act as sources of infection for susceptible colonies.

Certain other insects associated with bee hives, such as the wax-moths, wasps, ants, and possibly the death's head moth, may occasionally act as mechanical carriers of spores from one hive to another. Fantham and Porter have found that if house flies, blue bottles, wasps, mason bees, or sheep ticks be infected by *Nosema* spores they succumb to the effects of the latter.

REMEDIAL AND PREVENTIVE MEASURES.

Many remedies have been brought forward, but there appears to be little evidence that any of them result in effecting permanent cure for the disease, though temporary amelioration may not infrequently be obtained. The most satisfactory measures so far discovered are preventive rather than curative. Healthy stocks should be removed from the neighbourhood of diseased hives. The water supply should be rigidly attended to; clean water changed daily should be readily accessible and protected from contamination. The usual drinking places should if possible be removed. All dead bees should be burnt and diseased colonies destroyed. The ground around the hives should be dug over and treated with quick lime. Infected hives and the parts associated with them should be charred with a painter's lamp. In the place of charring a very thorough application of formalin or carbolic acid may be used, and the hives afterwards properly aired in strong sunlight.

The application of heat as a preventive measure has recently been studied in America (White, 1914). An aqueous solution of spore-containing material obtained from the chyle stomach of diseased bees was placed in a small glass tube and heated. Afterwards it was mixed with syrup and given to healthy bees, and it was found that a minimum temperature of approximately 57° C. (134.6° F.) applied for ten minutes renders the spores of *Nosema apis* innocuous. The hives and all implements used in apiculture could therefore probably be sterilized at this temperature or one slightly higher. Even the combs would suffer no harm in the process as the melting point of beeswax lies between 62° C. (143.6° F.) and 64° C. (147.2° F.). Experiments on the American lines need to be carried out in England in order to ascertain whether the

English strains of the *Nosema* parasite react similarly to the same temperature. It is believed that the results of work of this nature will be directly applicable to the control of this and other bee diseases.

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TREE PLANTING IN THE BLACK COUNTRY.

IN a very practical age it is not easy to interest people in schemes which do not promise a fairly speedy profit. For good or ill everyone is anxious to see his money back at the earliest opportunity, and the idea of making an investment which is not likely to yield any return for ten years at least is very uninviting. On this account it has always been a very difficult matter to stir up enthusiasm on the question of afforestation, a business in which the fruition of profits is naturally slow. It is all the more interesting, then, to consider the work which is being carried out by that energetic body, the Midland Reafforesting Association. Founded in the year 1903 this association was started with the idea of turning to good account the large amount of land which has been laid waste in the Black Country owing to the operations of the iron and coal industries. As is well known the whole of a huge area in this part of England is dotted all over with vast heaps of pit rubbish which are not only terribly unsightly, but also absolutely unproductive. The Midland Reafforesting Association set out

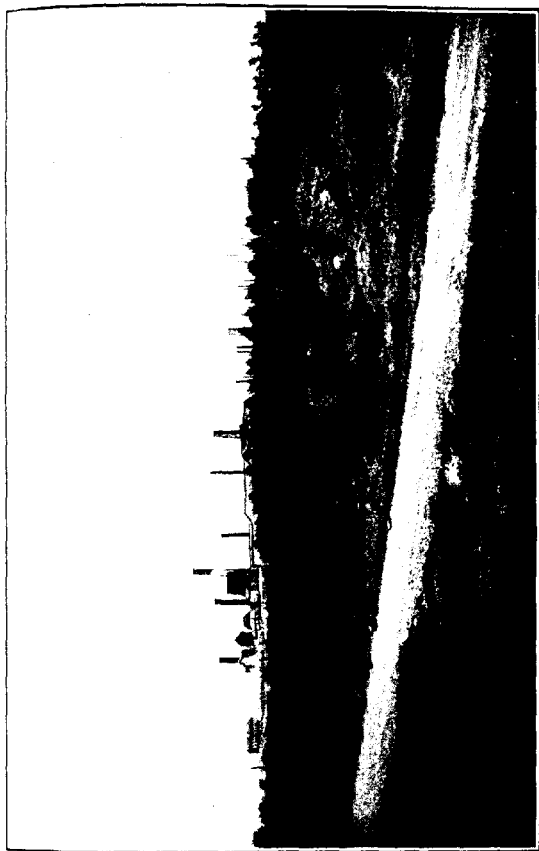
to convince the nation that it was possible to make very good use of these thousands of acres of artificially made desert. Right at the start the arguments convinced many influential people as to the commonsense nature of the proposals. Although these Midland districts were probably never a great forest country, it is known that years ago there were a large number of trees in the locality. Taking a rough square of land from Walsall to Stourbridge in the north and south, and from Wolverhampton to West Bromwich in the west and east, it is quite certain that a couple of hundred years ago the land was pleasantly rural. Of course as the mining operations extended the whole face of the countryside was transformed. For a long time no attempt was made to restore the district to its original condition, and gradually the legend arose that nothing would grow in the Black Country on account of the terrible smoky atmosphere, which meant certain death to every green thing. At the time of the founding of the Midland Reafforesting Association this idea was widely held and, even nowadays, most people have a vague idea that it is of no use trying to grow anything in the locality. Luckily the Association was able to point to two old plantations which had been formed by the Earl of Dudley, probably about 1810—1820. These are at the Wren's Nest and Dudley Castle Hill, and should be visited by all those who are sceptical as to the possibilities of tree planting in the Black Country. It is known that towards the end of the eighteenth century the whole of these districts were covered with quarries in connection with the limestone which is found there. When the quarries were worked out the Earl of Dudley carried through the planting, and it is possible to see the results at the present time. These wooded tracts resemble patches of virgin forest, despite the fact that in no part can one get away from the crash of hammers and the shriek of railway whistles. With regard to the question as to whether the material of which the surface soil is composed in the neighbourhood of mines would be suitable for the growth of trees, the following cases are of interest. Those who have any doubts should visit a small collection of trees in close proximity to the Old Hawn Colliery, at Halesowen. Here it is possible to see a wych elm tree with a circumference of nearly seven feet at a distance of a yard from the ground. This tree is growing in pure coal dust! Other instances to which attention may be called are the trees at Haden Hill, and at the Timbertree Mound, near Cradley Heath. In the first named plantation the trees are mainly beech, but wych elm, birch, common elm, and many other kinds are present and thriving. A large number of trees are from 100 to 200 years old and they show a fine growth of

straight timber. It is not pretended that these trees are on pit mounds, but the wood is simply surrounded by collieries and the whole of the district is undermined. At the Timber Mound the trees are chiefly birch and Austrian pine. These specimens were planted in 1890 by Mr. George Allan, and all are in a very flourishing condition.

The difficulties of forest making in the Black Country are not entirely due to the artificial conditions created by the industries of the district. This particular part of the Midlands of England is situated at a high level and is peculiarly exposed to the winds of heaven. When once well established the woods flourish, but it is not always an easy matter to start a plantation. Of course some districts are more favoured than others, owing to the fact that they happen to be sheltered in some way. Naturally, when planting trees on a large scale, it is not possible to do anything in the way of staking, or to arrange any special protection, in fact, the only way to meet the difficulty is to plant largely so that, even if a goodly portion of the trees perish, there will be a substantial number remaining. Up to a certain point the more thickly the trees are planted, the greater will be the protection which they will give to one another. At any point it is of course always possible to thin out. There seems to be a popular idea that for this forest making it is necessary to secure nursery grown specimens, but this is a mistaken impression. Seedling trees which have been raised under the hardest possible conditions are far and away the best for the purpose. Curiously enough, too, it is not always the trees which have been planted the most carefully that succeed the best. Mr. Martineau, the energetic Secretary of the Association, says that it has been proved that the best way to plant trees is to follow the example of Robinson Crusoe who "stuck pieces of trees in the ground and they grew." A case in point is to be found in connection with some trees which are growing in a pleasure park at Walsall. When the opening day for the park drew near the grounds were in such an unfinished condition that it was decided to dump a number of poplar cuttings into various positions to give an effect. These were put in very roughly, but strangely enough they have really grown better than those which were treated with more care. Of course the illustration is not used to encourage carelessness, but simply to emphasise the point that forest making is not such a delicate operation as is often supposed. Poplars are extremely easy subjects to establish, and it is doubtful whether such rough and ready methods would have answered in the case of other trees, unless they happened to be some kinds of willow. The plantations which have been made by the Midland Reafforesting Association have been regularly



ALDER AT FEVER HOSPITAL, BILSTON. THIS PLANTATION WAS FORMED
IN 1907-8.





BLACK WAGON. PLANTED 1907-S. WITH ALDER, WYCH ELM, BLACK ITALIAN
POPLAR AND SYCAMORE.

examined, and the loss of trees compares favourably with that which is experienced in other districts. Wherever trees are planted a loss of 10 to 15 per cent. occurs during the first year, and in these midland plantings the figure is well within the 15 per cent. limit.

After ten years of careful observation it has been found that the following trees give the best result in the conditions which obtain in the Black Country.

Black Alder.
White Alder.
Poplar, Black Italian.
Willows of sorts.
Wych Elm.
Birch.
Ash.
Sycamore.

These are the only trees used in large numbers, although from time to time many sorts have been tried with more or less success. Of the species mentioned the Black Alder is as numerous as all the rest of the others put together. Those of us who are used to seeing the Alder growing by the sides of rivers and streams in very moist positions do not find it easy to think of the tree as being happy on a mound of pit rubbish. Yet this tree flourishes amazingly in the most trying conditions. Probably the reason of this is found in the curious matted root formation of an alder, the effect of which is to hold the water in the soil, so that even in a dry situation a moist condition of the land is brought about. In some parts of the country, notably in the New Forest, it is a common saying that alders actually create bogs by their special manner of root growth. Thus the alder is a splendid tree with which to start a plantation, even if at a later date other kinds are introduced. Poles from alders are ready at a very early age, from 15—18 years from planting, and this wood is very much used in the Birmingham district in connection with certain industries. Poplar is always largely employed by manufacturers, and this tree is also of quick growth. Wych elm, ash and sycamore require a longer time before they are really valuable. An attempt is being made to start a plantation of the cricket-bat willow, and this has met with fair success. It will be noticed that conifers are omitted from the list of trees which may be grown in the Black Country. As a matter of fact wherever the atmosphere is heavily laden with smoke these trees, owing to their evergreen habit, always suffer severely. This is due to the fact that the foliage, which is retained all the year, is greatly injured by the heavy deposit of soot particles and other harmful matter. The

deciduous larch is a better subject, but this has not proved satisfactory in other ways. Where the district is actually clear of working mines and smoking chimneys it is possible to establish plantations of conifers. At Pelsall there are many plantations of spruce on pit mounds, whilst Scotch pines can be used where the banks are not of clay.

The practical aspects of this tree planting are of the greatest importance. One of the chief objects of the Association has been to prove to the business community that it is worth while from a commercial standpoint to make forests on this waste land. At the Royal Agricultural Show at Shrewsbury last year the Midland Reafforesting Association had a stand, and made the following exhibitions.

1. Maps and plans showing the area planted, and the area to be planted.
2. Photographs showing the growing of the various species in existing plantations.
3. Tops and bottoms of logs of various kinds of trees marketable in the Birmingham districts.
4. 30 or 40 different objects made in great numbers in the Birmingham district from the timbers in question.
5. Spade handles imported from America while Ash is now being grown in one particular instance within 100 yards of the factory where the spades themselves are made.

For this exhibit the Midland Reafforesting Association was awarded the bronze medal.

The Midland Reafforesting Association has carried out a good deal of work during the ten years or so of its existence. Hardly a year has passed without the forming of several plantations, some of the most successful of which are eloquent of what could be done in the way of forest making in the Black Country. Many colliery owners have approached the Association on the question of planting their waste ground. The Association is planting so that it may be able to point to profitable plantations formed under considerable difficulties, as an encouragement, not only to those who live in mining districts, but also to people more favourably situated who own land which might be profitably put under trees. Still further, the Association with the aid and countenance of various education authorities is hard at work instilling into the minds of the coming generation the importance of forestry from a national standpoint. As well, too, the children are taught to reverence trees and refrain from any wilful damage, a matter of the greatest importance in a thickly populated district. To help in these directions several plantations have

been made close to schools, and the children are encouraged to watch the growth of the trees and to help in protecting them from damage.

That a larger scheme of afforestation would give an enormous amount of employment there is little doubt. The work is of such a nature that it can be carried out by casual labourers. In the case of the tree planting in the Black Country, all the operations have been performed by casual workers under the direction of a foreman who has learned forest work in some of the older plantations. In many cases the men have been engaged through Distress Committees: in all instances the planting is done in a satisfactory way as no special knowledge is required. One of these days it is to be hoped that the nation will realize the great possibilities which exist in well directed schemes of forestry.

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SOME MINOR FARM CROPS. II.

I.—PEPPERMINT.

Two varieties of peppermint, known respectively as black and white mint, are grown in England for the production of the essential oil, but the area under cultivation is very limited, and it may not exceed 1,000 acres in all. In the Mitcham district, (which comprises Wallington, Carshalton, Ewell, Leatherhead, Dorking, and Caterham), together with Chelsfield and other parts of Kent, the total area under peppermint is believed to be between 400 and 500 acres. The total output of pure oil from this district probably does not exceed 10,000 lb. Mint is also grown in the neighbourhood of Burgess Hill in Sussex, as well as at Ashford in Kent, Hitchin in Hertfordshire, Long Melford in Suffolk, Elsenham in Essex, and in Lincolnshire.

Black and white peppermint are botanically practically identical, but they show considerable differences in appearance and habit. White peppermint was cultivated for many years before the introduction of the black variety which produces nearly double the quantity of oil, and at the present time only a small quantity of white mint is cultivated. It is chiefly grown by Messrs. J. & G. Miller, of Mitcham, to supply the demands of a few old firms of druggists. Black peppermint, so called from its dark green foliage and purple stems, was first used commercially about fifty years ago, and it has now almost

superseded the other kind, which has a leaf more lanceolate and serrated and of a lighter colour. Black peppermint seldom flowers except in hot and dry seasons, and it has not been seen in full flower since the memorable summer of 1893.

White peppermint differs from the black variety in that it comes earlier and flowers every summer. When in full flower land planted with it has an appearance somewhat similar to a field of lavender. The flowers in both cases are of a blue-grey colour.

Peppermint is said to grow best on land that is not more than 200 ft. above sea-level, and where the soil contains a certain proportion of clay mixed with chalk, and the climate is mild.

Outside England, the plant is cultivated in Japan, France, Italy, and also over an extensive area in the United States, particularly in Michigan. The oil from peppermint grown in Japan is from a different species—*Mentha arvensis*—and is bitter. It is grown principally for the separation of menthol. The oil produced in England had a cleaner flavour, and was much stronger than the American oil. Growers in the United States, by sending their produce to English markets, have in some measure undersold the home producers, and although the quality of the oil is inferior, there is less difference in the qualities of the English and the finest American oils at the present time. The improvement in the purity of the latter in recent years has been most noticeable. So much more alike are the oils now that the English peppermint oil industry is somewhat under a cloud owing to the methods of unscrupulous dealers, who blend redistilled American oils with the English or Mitcham product, and then sell it as guaranteed pure Mitcham oil.

Peppermint is being more extensively cultivated in the South of France and in Italy than formerly, and the area under this cultivation in the United States is on the increase, whilst in England the area is decreasing. The oil is used in confectionery, liqueurs, mouth-washes, &c.

CULTIVATION.

Peppermint is a deep-rooted plant with underground stems or rhizomes, and it can only be grown profitably on a good, light, warm soil—that which suits it best being a deep rich loam on gravel, but it will thrive well on a chalky subsoil. It likes a moist spring and a dry hot summer. It is propagated from roots, not from seeds.

The land is prepared during the winter as for a corn crop, about 20 tons per acre of manure being ploughed in, and a fine tilth obtained.

The plants are dibbled in during May, in rows 12 inches to 15 inches wide, and from 12 inches to 18 inches apart. The plants are sold by the bushel, and about 10-12 bushels go to an acre. The ground must be kept clean by frequent hoeing. As a peppermint plantation only lasts from four to five years, it is necessary to form three or four beds that will come on in succession, and this is usually done in the following manner:—

In October or November, after the first crop has been cut, trenches are dug from 8 feet to 10 feet apart, 15 inches deep, and 18 inches wide, the displaced earth being spread 2 inches deep over the plants between the trenches. Young shoots spring from the rhizomes of the old plants and make roots in this soil and in the following spring some of these are transplanted to other beds, the area under cultivation being thus extended.

In the following year the same process of earthing and transplanting is applied to the new beds, so that at the end of the fourth year, when the first bed is broken up, they take its place, and continuous succession is obtained.

Late in the second and following years the old plantation is ploughed over four or five inches deep, disc coulters being used to cut the rhizomes, and in the spring the land is harrowed before, and sometimes even after the young plants appear.

The peppermint plantations in their second year give the best results, and each year afterwards they gradually deteriorate. When the plantations are broken up at the end of four or five years, the land should not be used again for peppermint growing for many years.

INFLUENCES OF MANURES.

A series of experiments with Hungarian peppermint plants corresponding to the English black peppermint have, during recent years, been made at the agricultural experimental station at Vienna. It was found that the yield of oil from an area manured with farmyard manure, nitrate of soda, superphosphate, and kainit, was nearly double that from the same area which had received only farmyard manure, and nearly treble that from land which was not manured at all.

DISEASES.

The plant is subject to a fungus disease known as "rust," and in the Mitcham district as "snuff," and this is most prevalent and injurious in chalky districts. The fungus appears on the stems in the form of swellings, which develop into minute yellow cups containing spores. Brown spots may also appear on the leaves and lower parts of the plant. Their presence is due to

various causes, such as deficiency of moisture in summer, or unsuitable manuring, or from the plant being grown too often on the same land. The disease causes the leaves to fall off, and the herbage becomes deficient for distillation. In the South of France, in the neighbourhood of Grasse and Avignon, the plant is also subject to attack by a minute insect which does considerable damage.

CUTTING AND DISTILLING.

In most districts one crop only is obtained in each year. The mint is cut from July to September, when the plants flower, or earlier should the disease appear on the leaf. The cutting is done by hand with a hook. In some districts in France it is said that the plant is distilled immediately it has been cut, but in the Mitcham district it is sometimes necessary to leave it on the ground after cutting, owing to pressure of work at the still; and it is sometimes several weeks before distilling can take place. It is carried to the distillery packed in Russian mats. It is there unpacked and boiled with water in copper stills for about six hours. The steam from the boiling mint is condensed in a coil of metal pipes contained in a large vat of cold water, and the condensed liquor runs into a separator at the bottom of the vat. Here the oil rises to the surface, and the water is drawn off. When the vessel is full the oil is poured into cans and cleared by filtration through "filter paper."

It is then stored in glass bottles known as "Winchester quarts" (which contain about 5 lb. each) when it is ready for sale to the wholesale druggists.

The stills chiefly in use at Mitcham are the old-fashioned fire stills, but these are being replaced in some of the distilleries by a more modern form of steam still. Some of these in use at Mitcham contain two copper stills, each of 1,200 gallons capacity, and each capable of taking a charge of 1 ton of fresh cut peppermint and 400 gallons of water. The stills used both in France and Italy are steam stills, and it is suggested that apart from the effects of climate and soil differences in the process of distillation may be responsible for slight variations in the character of the oil.

COST OF PRODUCTION.

The cost of growing peppermint is very considerable, and it is said that if a capital of 10*l.* per acre is considered a fair allowance for ordinary farming operations at least 20*l.* per acre would be required for peppermint growing. The plants can generally be obtained, though in limited quantities, at a cost of

from 7s. to 10s. per bushel, according to the season and supply ; but in seasons when plants are scarce peppermint growers require them all for themselves, and it is difficult for others to get them at any price. To plant an acre about 10-12 bushels are required, and the cost of planting works out at about 30s. Cutting costs from 20s. to 30s. per acre. Mats run to about 1s. each, and the cost of distilling may be put down at 1l. for 20 mats. The Winchester quarts cost about 6d. each.

Although there are public distilleries in Mitcham, most of the leading growers have their own stills. A building with two copper stills and other apparatus will cost from 1,200l. to 1,500l.

An acre of land may be expected to produce 20 to 60 mats, which will yield from 10 to 15 lb. of oil, the quantity of it depending largely on the season. In good seasons and in certain districts as much as 25 lb. per acre has been obtained. This, however, is small when compared with the results obtained in the Vaucluse Department of France, where it is stated that the yield of oil is usually 44 lb. per acre.

The white peppermint yields about 2 to 5 lb. of oil per ton of herb, and the black variety 4 to 10 lb. per ton.

PRICES.

The appended Table, taken from *The Perfumery and Essential Oil Record*,¹ edited by Mr. John C. Umney, F.C.S., gives the average wholesale prices, and shows how they have fluctuated in the last thirteen years :—

	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901
English	32/-	28/-	31/-	26/-	30/-	31/-	33/-	33/-	26/-	28/-	28/-	26/-	24/6
American	11/6 to 16/-	10/6 to 12/3	10/- to 12/9	6/6 to 9/-	6/- to 8/6	5/9 to 7/3	8/- to 11/-	10/6	10/6	15/-	12/-	14/-	6/9

In 1890 the price for English peppermint oil was as low as 19s. a lb., and in 1898 only 3s. 9d. per lb. was obtained for the American oil. At the present time 30s. per lb. can be obtained for English oil, and 8s. 6d. per lb. for American oil.¹

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¹ An article upon this subject by the author appeared in the Journal of the Board of Agriculture during 1908.

II.—LAVENDER.

THE growth of lavender was introduced into this country from the continent of Europe more than three centuries ago, and like peppermint, though not to the same extent, it is now grown commercially in England for the essential oils, as well as for the flowers. The industry is best known in the district round Mitcham, in the county of Surrey, and Mitcham lavender and lavender water have established more than a local reputation. But the plant is also grown commercially in other parts of the county, and also in Kent, Hertfordshire, Suffolk and Dorsetshire.

Foreign competition, especially that of French lavender, has been largely responsible for the decline in the cultivation of this crop in England. The warm sunny climate of the Alpes Maritimes district in the South of France is more suitable to the growth of lavender than the comparatively sunless climate of England, and it is there that large areas of this crop are to be found. High situations also favour its growth, and in the south of France and in the north of Italy it grows very luxuriantly at altitudes of 4,000 feet. The climatic conditions produce important differences between the two oils, their composition varying very materially, and the plants of the French crops of lavender produce a larger quantity of oil, containing about 40 per cent. of esters, whilst the English plants produce less oil, with only 7 to 10 per cent. of this ingredient. But no doubt Mitcham oil has a reputation of which no other in the world can deprive it, though this reputation may in some cases have been prejudiced by adulteration.

The English oil is used for a particular type of lavender water, whilst the French oil is used for every other purpose, for soap, perfumery, &c.

The variety most prized for cultivation is *Lavandula vera*, and is the only variety commercially grown in England. Like peppermint it can only be grown profitably on certain soils. It requires a drier subsoil than peppermint, and that which suits it best is a light rich loam on chalk. Given the right soil it will grow in most situations provided it has plenty of sun and air. The best yield is obtained in a hot dry summer. Lavender plantations can be formed by taking cuttings from established plants, and they are never, probably, produced from seed.

CULTIVATION.

Land for this crop requires to be cultivated to a depth of from 12 to 15 inches till a good tilth is obtained, free from weeds. Land rich from the previous year's manuring is to be

preferred and fresh dung is not desirable. In seasons when the plants are scarce it may be difficult to purchase them, but sufficient in ordinary seasons to plant an acre would probably cost about 50*l*. The cuttings should be of young growth, taken in March, and they will strike root at any time between March and October. They are usually planted 2 inches apart. They should be prevented from flowering by clipping with shears, and by autumn they will be ready to transplant to the prepared bed. Open fine weather between November and March must be chosen for this operation. The plants after being trimmed should be dibbled in about 9 inches deep and 18 or 24 inches apart, in rows with a space of 18 inches between the rows. They should be firmly planted in the ground and during the winter care should be taken to press firmly round the plants any soil that may have become loose or lifted by frost.

The transplanting costs about 50*s*. an acre. Hoeing, to keep down the weeds, will then be the only attention the plantation will require.

In the autumn the plantation can be thinned out by removing every other plant or row. The plants that are lifted can be transferred to another bed, the area under cultivation being thus extended. A few flowers will appear at the first harvest after transplanting. The plantations are in their prime in the second, third, and fourth years, and although they are left sometimes for four years they are seldom profitable after the fifth year that follows transplanting. A field of lavender in full bloom is one unbroken sheet of blue, the effect of which upon the landscape is very beautiful.

HARVESTING.

The flower buds begin to swell usually in the early part of July, and if the flowers are required for decoration in their dried state, and not for the essential oils, cutting commences then. If grown for the essential oils the harvest commences at the time when the blue tint of the flower fades, which is usually at the beginning of August, though, of course, much depends on the season. Harvest has been known to commence as early as the middle of July, and as late as the beginning of September. The spikes are cut with a sickle. They are then gathered and packed in Russian mats and taken to the distillery as soon as possible, as in order to get the best results distillation should be effected without delay.

The cost of harvesting, including cutting, packing, and carting to the stills is about 50*s*. an acre. An acre of land will produce from 20 to 60 mats, which will yield from 15 to 30 lb. of oil.

DISTILLING.

The process of distilling is similar to that adopted in the case of peppermint. To secure the best oil, distillation should be allowed to proceed for only $3\frac{1}{2}$ hours. A further quantity of oil can be obtained if distillation is continued for $1\frac{1}{2}$ hours, but it is of an inferior quality.

The oil is stored in bottles similar to those used for the oil from peppermint, and it is then ready for the wholesale druggist. The cost of distilling is about 1*l.* for 20 mats.

Lavender growing is much more costly than peppermint, and a capital of at least 30*l.* an acre is required.

DISEASE.

The crop is subject to attacks of a fungus disease known by the growers as "shab," and the plants that are attacked are gradually destroyed. The fungus gives them a brown appearance.

PRICES.

The fluctuations in the prices of the essential oil is of some interest, and the appended table taken from *The Perfumery and Essential Oil Record*, edited by Mr. John C. Umney, F.C.S., shows the average wholesale prices since the beginning of this century.

	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901
English	51/- to 54/-	40/- to 45/-	32/- to 40/-	23/-	17/-	21/-	18/-	20/-	18/-	19/-	18/-	22/-	20/-
French	13/3 to 17/-	14/- to 16/6	10/3 to 15/6	10/6 to 11/3	9/6	7/9	11/9	13/6	10/3	7/3	6/3	5/6	5/9

¹ 1880=60.

In 1886 a record price of 120*s.* per lb. was obtained for English oil, but the price fell from that date until in 1909 the oil was sold for as little as 17*s.* per lb., an unremunerative price. Some English growers maintain that 40*s.* per lb. is the lowest price at which it can be profitably grown. At the present time 58*s.* to 61*s.* can be obtained for English oil and 15*s.* 6*d.* for French oil. The rise in price of French oil is due to some extent to labour conditions.

The greatest influence on the value of the oil is the ordinary law of supply and demand, and frost, drought, disease, etc., by affecting the yields, are also factors in the price.

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III.—POPPIES.

THE area under this crop is confined to some twenty acres at Haxey, a large village in the Isle of Axholme, its township comprising several hamlets with a great variety of soils, from the best to the very worst sand, well-drained peat land, and land which once was peat but now is rich warp-land.¹

In Haxey is to be found what is locally known as "Corduoy farming," the land being divided into strips of half an acre or more, with their ends abutting the high road, and with different crops on each. It is one of the few instances to be found in England of the "open field" farming, and has survived the numerous Inclosure Acts of the last century. It is here that the large white poppy—*Papaver somniferum*, var. *album*—is grown as a farm crop and forms part of a regular rotation.

A deep sand soil, with an open subsoil, is the one most suitable for this crop. There is, however, on these soils if too light a tendency for the crop to be "blown," the reason being that the roots of the plant have few ramifications. The rotation followed where poppies are taken is turnips, poppies, potatoes, wheat, barley, or oats. No manure is actually applied to the poppy crop, but the land must be in very good heart.

The seed is sown at the rate of 2 lb. per acre in rows 12 in. apart, a carrot drill being generally used for this purpose. The seed should be in the soil by the end of February, and when the plant is large enough, generally six or eight weeks after sowing, the crop should be crossed with a 4 in. hoe. The plants must next be singled to a distance of 5 in. apart, and further hoeing is necessary to keep down weeds, as it is most essential to keep the crop clean.

By the beginning of July the poppies are in full flower, the large, pure white flowers presenting a very striking appearance. The flowering period soon passes, and the young heads or seed capsules begin to appear. They reach maturity six or eight weeks after flowering, and are then ready for plucking. All the heads will not ripen at the same time, and consequently this plucking process has to be repeated two or three times at intervals of two or three weeks. The indication that the heads are ripe and fit to be plucked is the change of colour of the capsule from a bright green to a dull buff. The heads are spread on a granary floor to dry, when thoroughly dry they are sorted according to their sizes—the large ones being about the size of a tennis ball—and sold, usually, to a local chemist. The price for the large heads is 10s. per thousand, and 6s. to 7s. for the smaller ones.

¹ See Journal of the Royal Agricultural Society, vol. 73, page 101.

The cost per acre of poppy growing is as follows :—

	£	s.	d.
Value of manure in land	2	0	0
Autumn ploughing	0	8	0
Twice harrowing in spring	0	3	0
Light rolling	0	1	0
Drilling	0	2	6
Seed	0	2	0
Crossing and singling	1	5	0
Hoeing	0	15	0
Hoeing second time	0	15	0
Plucking heads three times and spreading in granary	1	10	0
Attention afterwards, turning, &c.	0	5	0
Sorting and despatching heads	1	0	0
Rates and taxes	0	5	0
Rent	1	10	0
	10	1	6

In the above list 2*l.* is allowed for manure. This is "unexhausted manure" which is already in the soil, no manure being actually applied for this crop.

It is difficult to state what the return is per acre. In some years this crop may fetch up to 20*l.* per acre, and then again in a bad year it may only fetch 5*l.*

The poppy likes a fairly dry year, though if too dry it is badly attacked with "black filth" just when the flower is falling, and, unfortunately, there appears to be no remedy. In a very wet season the crop may fail altogether.

The poppy heads are chiefly used, after the seed has been shaken out, for fomentation purposes, and there is a small demand for the seed itself as a medicinal food for canaries.

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IV.—CELERY.

In the north-west corner of Lincolnshire, crops are grown which are seldom seen in other parts of the kingdom, and form part of the regular rotation of the farm. This is no doubt due to the soil, as these crops are generally to be found on the rich warp-land, described in the *Journal* for 1912 (Vol. 73, p. 104). On another page will be found a short account of poppy growing at Haxey, and it is here proposed to give a description of the cultivation of celery as carried out in the same district of Lincolnshire, where many acres under this crop are to be found.

Warp land, with a peat subsoil, grows celery of the best quality, that is to say, the firmest and sweetest, though an

appreciable quantity of second quality celery is grown on peat soil pure and simple. Celery is an expensive crop to grow, and therefore needs not a little capital and very considerable experience. The method described in detail here is the one usually followed, though it is not adopted by all celery growers, many having their individual ways of cultivation.

Celery seed is not drilled in the trenches, as in the case of roots, but is sown under glass, and the small plants are pricked out. Some farmers grow their own plants, but many buy them. This raising of young celery plants has become quite an industry, notably in the village of Haxey, and seeing that each acre of celery grown requires 20,000 young plants, it will readily be understood that it offers considerable scope to some of the smaller occupiers.

Two varieties of celery are grown in this district, the "pink" celery on the best or warp land, and the "white" on the peat. Early in February the frames or "lights" are prepared; they usually measure 4 ft. by 3 ft. About February 10, $\frac{1}{2}$ oz. of seed, costing about 8s. per lb. is sown in each of the lights. This $\frac{1}{2}$ oz. of seed should produce 10,000 plants. At about the middle of April the small plants are pricked out into beds. The garden where the beds are to be should have been carefully dug over and well manured, and should have a very fine tilth. The beds should be in strips 6 ft. wide, with a narrow path between each. This pricking out, which is most delicate work, is usually done by women, it being "let" to them at 6d. per 1,000 plants. The plants are pricked out at a distance of $1\frac{1}{2}$ in. apart, so that one square yard will contain 600. The seedlings remain in these beds until the middle of June, when they are ready for the trenches. Their value will now be from 2s. 6d. to 3s. per 1,000.

Celery usually follows wheat in the rotation, and early in the autumn the stubble is ploughed with a special digging-plough into small lands 5 ft. in width, the open furrows being finished as deep as possible to form the trenches for the plants. This first ploughing will require four horses. The land is left in this condition through the winter for the ameliorating influence of the frosts. Early in the spring, in February if possible, fork manure is placed in the trenches, 30 tons to the acre being generally applied. This will be seen to be a very heavy dressing, as the celery trenches are twice the distance apart that potatoes are grown at. Celery growers prefer town manure, when good, to that made in their own yards, the reason being that it consists of stable manure and butchers' refuse, &c., which is regarded as very favourable to growth.

It will usually cost 2s. 6d. to 3s. per ton in the town. Of course the question of freight for such bulky manure is a serious one, and where water carriage is possible it is always resorted to, as great economy is thereby effected. The manure is carefully spread and trodden level in the trenches, which will be some 15 in. in width, and a thin furrow-slice from one side of the trench is turned over on to the manure. Artificials, if used, are sown on this and covered with a thin furrow from the other side of the trench. The land is well harrowed and then left in this condition till the middle of June, when the plants are ready to be transplanted from the beds into the trenches.

This work is done by gangs, two men and a boy to each gang; one man rakes the surface of the land in the trench, the boy or "dropper," as he is called, drops the plants five inches apart, whilst the second man pricks holes with a short thick pointed stick, puts in the plants and firmly presses the soil around. The cost of this operation works out at 1l. per acre. The land must be kept clean, first by hand hoeing and then with the horse hoe.

In July, when the plants have grown to a sufficient height, a two-horse furrow is turned towards and up to the plant on each side, and is then pulverized down by means of the "scarifier" or "grubber" which is a strong, heavy implement.

In September, the celery will be ready for "banking"; a four-horse furrow is turned up with the digger on top of the last furrow, right up to and on each side of the plant, and slightly pressing it. The pressing must not be carried too far or else the plant may be nipped, or pushed over on one side. When this work is completed the rest of the land is then scarified, and, if possible, a further furrow-slice is lifted on to the former one, should the plant be tall enough.

The top of the ridge is then pushed in close to the plants on both sides, thus pressing and holding them together in a thin line. This is done with a tool similar to an old sweeping brush. Finally, the earth is thrown still higher with the spade or shovel, and trimmed to the top. The ridge will now be two feet or more in height with six inches of the celery leaves showing above it. This expensive operation is necessary to ensure the effectual bleaching of the greater part of the stalk, and further it prevents damage by rain and frost. It is sometimes necessary to heighten the ridge still more some ten days before marketing, so as to bleach the last growth.

The date of marketing celery varies to a great extent. It may be in the autumn, or it may not be till after Christmas, but usually a good crop will be ready sometime in October. The plant will be between two and three feet in length and the

greater part of this will be bleached white. When ready, a large furrow is ploughed off one side of the ridge, and then a good "draw" with a spade will expose one side of the roots. The plants are drawn out on that side and laid against the ridge. The celery is then bound up firmly and compactly into bundles of twelve roots, with willow twigs. The superfluous earth is knocked off, and the celery is then ready for the market. The value of each bundle at the station will be from 6d. to 1s., and the weight of a bundle will be up to 28 lb.

Frequently the whole of the hand labour, from planting in the trenches to preparing for the market, is let to a "gang" for 6l. per acre. This will include filling in gaps where the plants have failed.

Celery is often grown two years in succession, in which case the trenches will fall nearly in the same places. Potatoes usually follow celery, as the land is in such excellent condition for them. Some farmers grow early potatoes between the rows, and these, of course, are marketed before the "banking" stage in the celery cultivation is reached. The cost per acre of growing celery is:—

	£	s.	d.
Rent, Rates and Taxes	2	5	0
Fork Manure, 30 tons	10	0	0
Plants, 21,000	3	0	0
Planting	1	0	0
Cleaning	1	0	0
Banking	2	0	0
Getting up	2	0	0
Horse Labour	5	0	0
Artificiala	1	0	0
	27	0	0

The return per acre is 50l. or more, but this crop is a highly speculative one. In one case known to the writer, a farmer sold his crop in the year 1913 for 60l. per acre, whereas in the previous year, the wet season of 1912, his crop was not worth as many shillings.

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CONTEMPORARY AGRICULTURAL LAW.

I.—LEGISLATION.

THERE are two Acts of Parliament, passed in 1914, which are of considerable importance to those interested in Agriculture.

The first is the Agricultural Holdings Act, 1914 (4 and 5 Geo. 5 c. 7), which provides that where the tenancy of an agricultural holding is terminated after the passing of the Act (July 31, 1914), by notice to quit given after that date (a) in view of the sale or offering for sale of the holding or any part thereof, or (b) by or at the request of the purchaser of the holding, before the expiration of one year after the completion of the purchase of the holding, for any reason other than the wrongful act or default of the tenant in relation to the holding, the tenant shall be entitled to compensation for disturbance as provided by Section 11 of the Agricultural Holdings Act, 1908 (*i.e.*, for the loss or expense directly attributable to his quitting the holding, unavoidably incurred in connection with the sale or removal of his household goods, implements, produce or farm stock), but so that notice of his intention to claim compensation may be given at any time not less than two months before the determination of the tenancy. The Act does not give compensation in any case to which the Small Holdings Act, 1910, applies, and it is provided that any difference under the Act shall in default of agreement be settled by arbitration. It was passed to meet the hardship complained of by tenant farmers of being obliged to give up their holdings in consequence of sales by their landlords and for no default of their own.

The second Act is the long promised Milk and Dairies Act, 1914 (4 and 5 Geo. 5 c. 49). Section 1 makes it an offence—(a) to sell or offer for sale or suffer to be sold or offered for sale for human consumption or for use in the manufacture of products for human consumption, and (b) to use or suffer to be used in the manufacture of products for human consumption, the milk of any cow which has given tuberculous milk or is suffering from emaciation due to tuberculosis or from tuberculosis of the udder, or from acute inflammation of the udder, or from any of the diseases specified in the First Schedule to the Act (which includes anthrax, foot and mouth disease, and suppuration of the udder), but it must be proved that the person selling or offering for sale had previously received notice from an officer of a local authority, or that he otherwise knew, or by the exercise of ordinary care could have ascertained, that the cow had given tuberculous milk or was suffering from any such disease.

Section 2, Sub-section 1, provides that Milk and Dairies Orders shall be made by the Local Government Board with the concurrence of the Board of Agriculture and Fisheries, and shall have effect as if enacted in the Act. Such orders shall include the following purposes—(a) the registration with the local authorities of all dairies, (b) the inspection by persons authorised by the local authority of dairies and persons in or about dairies who have access to the milk or to the churns or other milk receptacles, (c) the prevention of danger to health from the sale for human consumption, or from use in the manufacture of products for human consumption, of infected, contaminated, or dirty milk, (d) the prohibition of the addition of colouring matter, and the prohibition or regulation of the addition of skimmed or separated milk or water or any other substance to milk intended for sale for human consumption, or the abstraction therefrom of butter fat or any other constituent, and the prohibition or regulation of the sale for human consumption of milk to which such an addition or from which such abstraction has been made or which has been otherwise artificially treated, (e) the regulation of the cooling, conveyance, and distribution of milk intended for sale for human consumption, or for use in the manufacture of products for human consumption, (f) the labelling, marking, or identification and the sealing or closing of churns, vessels, and other receptacles of milk for sale for human consumption or used for the conveyance of such milk, (g) authorising the use in connection with the sale of milk of the designation “certified milk,” prescribing the conditions subject to which milk may be sold under such designation. Under Sub-section 2 of the same Section a Milk and Dairies Order with respect to the inspection of cattle in a dairy may authorise the person making the inspection to require any cow to be milked in his presence and to take samples of the milk, and to require that the milk from any particular teat shall be kept separate and to take separate samples thereof.

Section 3 gives power to the medical officer of health of a county or county borough to report that tuberculosis is caused, or is likely to be caused, by the consumption of milk from any particular dairy and the County Council may then, after asking for an explanation from the dairyman, if he does not show cause why an order should not be made, make an order prohibiting him either absolutely, or unless prescribed conditions are complied with, from supplying for human consumption any milk from the dairy or from any particular cow or cows therein. The procedure for making an order of this kind is contained in the Second Schedule to the Act, and an appeal is thereby given to a dairyman aggrieved by the making or

continuance of an order prohibiting the supply of milk to a court of summary jurisdiction. When such an order is made a dairyman will not be liable for breach of contract if the breach is due to such order. If the order has not been made in consequence of his own neglect or default, the dairyman will be entitled to recover from the authority full compensation for any damage or loss sustained by reason of the making of the order, to be ascertained by arbitration.

Section 4 imposes on medical officers of health the obligation to inspect dairies if they have reason to suspect that tuberculosis is caused or is likely to be caused by the consumption of any milk which is being sold within the area of the local authority.

Section 5 gives power to an inspector of the Local Government Board, or the medical officer of health of a local authority, or any person provided with, and if required exhibiting, an authority in writing from such inspector or from the local authority or medical officer of health to take for examination samples of milk at any time before it is delivered to the consumer.

Section 6 amends the provisions of the Sale of Food and Drugs Acts, 1875 to 1937, in reference to the taking of samples of milk and any proceedings in connection therewith in accordance with the provisions contained in the Third Schedule to the Act. The principal of these amendments are that when a sample of milk is under the Acts procured from a purveyor of milk he shall on being so required state the name and address of the seller or consignor from whom he received the milk, and the local authority in whose district the sample was taken, may take or cause to be taken one or more samples of milk in course of transit or delivery from such seller or consignor. Any sample of milk so taken in the course of transit or delivery must be submitted for analysis to the analyst to whom the samples procured from the purveyor is submitted. The local authority of the district in which the first mentioned sample was taken may, instead of or in addition to taking proceedings against the purveyor of milk, take proceedings against the seller or consignor.

Under Section 7 of the Act a local authority may, and when required by the Local Government Board shall, appoint or combine with another local authority in appointing one or more veterinary inspectors for the purposes of the Act and the Milk and Dairies Orders.

Section 8 empowers the Local Government Board to make regulations for the prevention of dangers arising to public health from the importation of milk and milk products.

Section 9 enables sanitary authorities to establish and maintain milk depôts for the sale at not less than cost price of milk specially prepared for consumption by infants under two years of age. Under Section 10, local authorities may be compelled by the Local Government Board to fulfil their duties under the Act or under any Milk and Dairies Order.

Section 15 prescribes penalties for offences against the Act.

Section 16 includes several important definitions. It defines "dairy" as including any farm, cowshed, milk store, milk shop, or other place from which milk is supplied on or for sale, or in which milk is kept or used for purposes of sale or manufacture into butter, cheese, dried milk or condensed milk for sale. "Milk" is defined as including cream, skimmed milk, and separated milk, and "dairyman" as including any occupier of a dairy, any cowkeeper, or any purveyor of milk. The expression "sanitary authority" as respects London means the sanitary authority for the purposes of the Public Health (London) Act, 1891, and elsewhere the council of a borough or of an urban or rural district. The expression "local authority" includes sanitary authorities and county councils, but any Milk and Dairies Order may prescribe by what local authority or authorities its several provisions are to be enforced or executed.

By Section 18 the Act is to come into force on January 1, 1915, or such later date, not being later than October 1, 1915, as the Local Government Board may appoint. The Board have recently issued an Order under this Section appointing October 1, 1915, as the date on which the Act shall come into operation.

The Finance Act, 1914 (4 and 5 Geo. 5 c. 10), in Section 8 contains a provision which is intended to operate in favour of landlords of agricultural property by removing the limit on the amount of relief which can be obtained under Section 69 of the Finance (1909-10) Act, 1910, where it is shown that the amount expended in maintenance, repairs, insurance and management according to the average of the preceding five years has exceeded in the case of land one-eighth part of the annual value of the land as adopted for the purpose of income tax under Schedule A, and in the case of houses one-sixth part of that value. Under Section 69, the amount of repayment of duty under the above mentioned circumstances was not allowed to exceed in the case of land one-eighth part and in the case of houses one-twelfth part of the duty on an amount equal to the annual value. This limit is therefore removed by the Act of 1914, so that there is now no limit on the amount of repayment which may be claimed when it is shown that the average cost of maintenance, repairs, insurance and management has exceeded in the case of land the statutory allowance of one-eighth and in the case of houses of one-sixth. Further,

the limit of 8*l.* placed by the Act of 1910 as the maximum value under Schedule A of any house in respect of which the relief may be obtained is extended by the Act of 1914 to 12*l.*

II.—DECISIONS OF THE COURTS.

1. *Labour.* There have in 1914, as in past years, been numerous decisions under the Workmen's Compensation Act, 1906, but few of these relate to agricultural labour. In the Irish case of *Carinduff v. Gilmore* (1914, W.C. and Ins. Rep., 247; 7 B.W.C.C., 981) a girl was employed on a threshing machine in handing the sheaves to be placed in the machine. She was sitting on top of the machine, and on rising her right hand and arm were caught in the machine and crushed. It appeared that her employer had come out and handed up to her and two other persons employed on the machine certain refreshments to be consumed by them while on the top of the machine. For the purpose of shelter the girl, while taking the refreshment, crossed over from the side of the machine on which she had been working to the opposite side of the opening and sat upon some sheaves. It was in rising up from this position that the accident occurred. The Court held that the accident arose "out of and in the course" of the employment, and the girl was therefore entitled to compensation for the injury sustained.

Evans v. Holloway (1914, W.C. and Ins. Rep., 75; 7 B.W.C.C., 248) illustrates the danger of permitting an employee to give lifts to his fellows. The workman was driving his employer's cart home after finishing his work. On the way he was hailed by a fellow employee and asked for a lift home. He stopped the cart and began to alter a seat to accommodate the fellow employee. While doing so the horse started, he fell out of the back of the cart, and subsequently died of his injuries. It was proved that the habit of giving a lift to fellow employees in these circumstances was known to and recognised by the employer. It was held that the accident arose "out of and in the course" of the employment, and the employer was therefore liable to pay compensation to the man's widow. In *McConnell v. Galbraith* (1914, W.C. and Ins. Rep., 90; 7 B.W.C.C., 968) it was held that a rabbit trapper who had agreed to do the trapping of rabbits on certain lands at a fixed payment per couple, and was injured in the course of his employment, was an independent contractor, and not a workman who could claim compensation from his employer. *Ing v. Higgs* (1914, W.C. and Ins. Rep., 84; 110 L.T., 442; 7 B.W.C.C., 65) raised the question of prejudice to the employer by want of notice of the injury. The workman was employed in a hop garden in Kent, and when using a beetle for driving stakes into the ground on February 7 he strained his heart. He went on working for his

employer till March 14, and then feeling inconvenience in his left side, and some pain, he consulted a doctor, under whose advice he went to a hospital. No notice of the accident was given to the employer until June 23. It was held that in the absence of evidence that the employer was not prejudiced by want of notice, the workman's claim was barred by his failure to give notice before June 23.

Godman v. Crofton (12 L.G.R., 330; 110 L.T., 387) was a case under the National Insurance Act, 1911, which deserves notice, and shows the necessity for an employer satisfying himself that his labourers' cards are duly stamped, and the danger of delegating the duty to a foreman or bailiff. A gardener's labourer was employed by the respondent, Jane Crofton, at weekly wages. He handed his insurance card to the head gardener and had no direct dealings at all with his employer, the respondent. No stamps were affixed to the card in respect of three consecutive weeks. It was held that the employer had committed an offence and was liable to be fined under Section 69 of the National Insurance Act, 1911, although it might have been the head gardener's fault that the stamps were not affixed. The Court said that an employer might quite well employ someone else to affix stamps to a workman's card, but if he so delegated his duty, it was at the employer's risk, and if not performed he was responsible.

2. *Stock*. There have been no decisions of any importance relating to farm stock. The case of *North v. Wood* (83 L.J.K.B., 587; 1914, 1 K.B., 629), however, deserves a passing notice, as it deals with the question of responsibility for the acts of a savage dog. The defendant's daughter, aged seventeen, was the owner of a dog for which she took out a licence in her own name, and paid for its food out of her own earnings, the defendant assenting to the dog living in his house. The dog, which had previously attacked other dogs to the knowledge of the defendant and his daughter, killed a valuable dog belonging to the plaintiff. The *scienter* as to the dangerous disposition of the dog was therefore established. The County Court Judge, before whom the action first came, found as a fact that the daughter had control of the dog, and therefore held the defendant not liable. The Divisional Court, on an appeal, confirmed this decision on the ground that as the daughter was of a sufficient age to exercise control over the dog, and did in fact exercise such control, the defendant was not liable for the loss of the plaintiff's dog.

3. *Landlord and Tenant*. *Williams v. Wallis and Cox* (83 L.J.K.B., 1296; 1914, 2 K.B., 478) is an important case relating to an arbitration on a question arising between landlord and tenant under Section 13, Sub-section 1, of the Agricultural

Holdings Act, 1908, which refers all such questions to the determination of a single arbitrator. The claim was by the landlord for breach of a covenant to deliver up the premises "in as good and tenantable repair as they now are," and it was referred to arbitration. The arbitrator made an award in favour of the landlord. The tenant alleged that the arbitrator had refused to admit evidence tendered by him as to the condition of the farm at the commencement of the tenancy which he contended to be material, and he applied to the County Court under Schedule II., Clause 13 of the Act to set aside the award on the ground that the arbitrator had misconducted himself, the misconduct alleged being his refusal to admit this evidence. The County Court Judge dismissed the application, holding that the refusal to admit evidence did not amount to misconduct entitling him to set aside the award. The tenant appealed to the Divisional Court, and it was objected that no appeal lay from the County Court Judge's decision, as Section 43 of the Act says, "An order of the County Court . . . under this Act shall not be quashed for want of form or be removed by certiorari or otherwise into any superior Court." It was held that that section had no application, as to remove an order from the County Court in order to quash it was a different thing from appealing against it. The Judge was acting in his ordinary jurisdiction as County Court Judge, and an appeal lay from his decision under Section 120 of the County Courts Act, 1888. On the main question raised it was held that refusal of an arbitrator to admit material evidence on the question at issue is evidence of misconduct on his part, entitling the County Court to set aside the award.

May v. Mills (30 Times L.R., 287) shows the limits of the jurisdiction of an arbitrator in a dispute between landlord and tenant under a lease which referred differences arising during the term to arbitration. Certain differences arose which the arbitrator decided arose during the tenancy, and he made a finding in the plaintiff's favour. The defendant took no part in the arbitration, as he contended that the dispute did not arise during the tenancy. It was held that the arbitrator was not authorised by the submission to arbitration to decide the preliminary question whether the dispute arose during the tenancy between the plaintiff and defendant or not, and the award was therefore set aside.

Ashburton (Lord) v. Nocton (50 L.J.N.C., 16; 1915, W.N.S.) illustrates the risk which a tenant may run who pays his rent in advance under discount by an arrangement with his landlord. A judgment for a large amount had been recovered against the landlord, and writs of execution had been issued and registered in respect of his land before the payment took place. It was

held by the Court of Appeal reversing the judgment of Mr. Justice Sargant that the arrangement between the landlord and tenant under these circumstances was not binding as against the judgment creditor, add that the tenant had therefore not obtained a good discharge for his rent, and must pay it over again to the receiver appointed at the instance of the judgment creditor.

Pullen-Burry v. Lancing College (3 L.J.C.C. Rep., 54) was a curious market gardening case decided by a County Court judge. He held that under a covenant by the landlord to pay the tenants at the end of the term according to a valuation for all fruit trees "and other crops then growing" on the holding, the landlord was liable to pay for a large number of bulbs of very considerable value planted by the tenant. The case is now under appeal.

4. *Produce. Marcus v. Crook* (83 L.J.K.B., 1376; 1914, 3 K.B., 173) was a case of warranty of the purity of milk. The appellant, a dairyman, was charged with selling milk adulterated with 5 per cent. of added water. He set up as a defence, under the Food and Drugs Act, 1875, Section 25, that he had purchased the same under a written warranty of purity. Section 20 of the Sale of Food and Drugs Act, 1899, provides that a warranty shall not be a defence under the Sale of Food and Drugs Act unless the defendant has within seven days after service of the summons sent to the purchaser a copy of the warranty with a written notice that he intends to rely on it, and has also sent a like notice of his intention to the person giving the warranty. It was held that the requirement of seven days did not apply to the notice to be sent to the person giving the warranty. It was sufficient if at the time when the Court had to decide whether a warranty was available to the defendant as a defence notice had been given by the defendant to the person giving the warranty of his intention to rely on it as a defence.

5. *Fertilisers and Feeding Stuffs. Worcestershire County Council v. Notley Brothers* (83 L.J.K.B., 1750; 1913, 3 K.B., 330) is an important case under the Fertilisers and Feeding Stuffs Act, 1906 (6 Edw. 7, c. 27), which provides by Section 1, Sub-section 2 that every person who sells for use as food for cattle or poultry any article which has been artificially prepared otherwise than by being mixed, broken, ground or chopped, shall give to the purchaser an invoice stating what are the respective percentages (if any) of oil and albuminoids in the article. The respondents sold for use as food for cattle or poultry $3\frac{1}{2}$ lb. of "sharps" which are well known as an offal of wheat being the part remaining after the flour and bran, from each of which it differs in chemical composition, have been

removed, but not having undergone any chemical change in substance. They were summoned for selling the sharps without delivering the invoice required by Section 1 of the Fertilisers and Feeding Stuffs Act, 1906, showing the percentages of oil and albuminoids. It was contended and held by the Court that no such invoice was required as the sharps were not an article "artificially prepared" within the meaning of the section, or assuming that they were so they were not "artificially prepared otherwise than by being mixed, broken, ground or chopped."

6. *Game*. In *Dickinson v. East* (30 Times L.R., 496), the respondents, who were going out ferreting, asked the son of a farmer in the neighbourhood whether, if a rabbit went into his father's field, they might follow it. He replied there was no objection so far as he was concerned, and they availed themselves of this permission. A summons was issued against them for an alleged trespass on the farmer's land. At the hearing of the summons the farmer attended and said that he would have been prepared to confirm the permission to go upon his land given by his son to the respondents. The summons was dismissed, and on a case stated to the Divisional Court they held it was rightly dismissed, as on a summons under the Poaching Prevention Act, 1862, it is a good defence to prove that the defendant had a *bond fide* belief that he had permission to go on the land, together with reasonable grounds for that belief.

7. *Land Valuation and Duties*. There have been interesting and important decisions on these subjects, affecting agricultural land. In *Waite's Executors v. Inland Revenue Commissioners* (83 L.J.K.B., 1617; 1914, 3 K.B., 196), a farm consisting of a farmhouse and about 150 acres of agricultural land in Lincolnshire almost the whole of which lay below the level of the highest spring tides was protected from the sea by two sea-walls or banks made of rammed earth covered with turf. One of these banks was probably of Roman origin and the other was constructed about 1808. The farm lay seven miles from the nearest station and twelve from the nearest market town. Upon a valuation under the Finance (1909-10) Act, 1910, for the purpose of arriving at the assessable site value, it was held on appeal from the Referee and from Mr. Justice Scrutton that the walls were not "buildings," and if "structures," were not "structures used in connection with" buildings within Section 25, Sub-section 2, of the Act, that they had not been made "by or on behalf of or solely in the interest of any person interested in the land for the purpose of improving the value of the land as building land" within Section 25, Sub-section 4 (b) of the Act, that they had not "actually improved the value of the land as building land" within Section 25, Sub-section 4 (c) of the

act, and therefore that no deduction was allowable in respect of them in arriving at the assessable site value of the land. The court said that "building land" in Section 25 must not be taken to mean any land upon which houses were physically capable of being built, but land as to which there was at the given time a reasonable and approximate chance of its being laid out and developed for building purposes. The land in question did not come under that description.

Inland Revenue Commissioners v. Smyth (83 L.J.K.B., 13: 1914, 3 K.B., 406) is a still more important case on the same subject. In that case Mr. Justice Scrutton held that in valuing land "in its then condition" on April 30, 1909, as the valuer is required to do under Section 25, Sub-section 1, of the Finance (1909-10) Act, 1910, in order to arrive at the "gross value" and "total value" of the land he must include any sums attributable to the value of the tenant right, *i.e.* the tenant's interest in unexhausted manures and tillages, but that deductions cannot be made under Sub-section 4 (d) of the same Section in respect of such increased value in order to arrive at the assessable site value of the land. Further, he held that in valuing land "in its then condition" all unsevered vegetable growths, whether natural or artificial, transitory or permanent, which of course include growing grass, must be included in the "gross value" of the land under Section 25, Sub-section 1, but the value of such growing things, including grass, must be deducted in arriving at the "assessable site value." The same learned judge further held that the value of a private road to the farm could not be deducted in arriving at the site value of the land as it could not be said to be a "structure" under Section 25, Sub-section 2. A "structure" the value of which must be so deducted must be something artificially erected, constructed, or put together of a certain degree of size and permanence which is still maintained as an artificial erection, or which, though not so maintained, has not become indistinguishable in bounds from the natural earth surrounding. Another case of the same kind is *Inland Revenue Commissioners v. Hunter* (1914, 3 K.B., 423) where it was decided by the same learned judge that in ascertaining the value of agricultural land which has to be found under Section 25, Sub-section 1 of the Act, the value of the land for sporting purposes is not to be included, although under Section 2 of the Act, which enacts that increment value duty shall not be charged in respect of agricultural land while that land has a higher value than its market value at the time for agricultural purposes, it is provided that any value for sporting purposes shall be treated as value for agricultural purposes only except when the value for any such purpose exceeds the

agricultural value of the land. These two cases are now under appeal.

In *Southend-on-Sea Estates Company v. Inland Revenue Commissioners* (83 L.J.K.B., 611; 1914, 1 K.B., 515) the question raised was as to the liability of land in fact used as agricultural land for undeveloped land duty which, under Section 17, Sub-section 1 of the Finance (1909-10) Act, 1910, is not to be charged in respect of any land of which the site value does not exceed 50*l.* per acre. The land in question was admittedly undeveloped land of more than 50*l.* per acre in value, but it was held and farmed as agricultural land by tenants under a lease for seven years which had not expired when the Act came into operation. The lease contained a power to the lessors at any time to enter upon and resume possession of certain parts of the land for building or other purposes upon giving the lessee one month's notice. Section 17, Sub-section 5 of the Act provides that when agricultural land is at the passing of the Act held under a tenancy originally created by a lease or agreement made before April 30, 1909, undeveloped land duty shall not be charged on the site value of the land during the original term of that lease or agreement while the tenancy continues thereunder, but that where the landlord has power to determine the tenancy of the whole or any part of the land the tenancy of the land or that part of the land shall not be deemed to continue after the earliest date after the commencement of the Act at which it is possible to determine the tenancy. It was contended that as there was power to resume possession for building and other purposes the land became liable to undeveloped land duty before the determination of the lease by virtue of the clause at the end of Section 17, Sub-section 5. It was held, however, that the land was not liable to undeveloped land duty before the determination of the lease, as the right to resume possession never arose under the power which was not exercisable except in an event which had never happened, namely, the desire and intention to take possession of the land for building or some other purpose than the agricultural purpose of the lease. This decision has since been affirmed in the House of Lords (see 31 Times L.R., 30).

8. *Miscellaneous.* In *London County Council v. Le* (83 L.J.K.B., 1373; 1914, 3 K.B., 255), Caleb Lee, a farmer and market gardener, owned a motor traction engine, which he employed to carry produce from his farm at Swanley to the Borough Market in London. Under the Locomotives Act, 1898 (61 and 62 Vict., c. 29), Section 9, Sub-section 1, every locomotive must be licensed by a County Council, "provided that this enactment shall not apply to an agricultural locomotive," which expression is defined in Section 17 as including "any

locomotive the property of one or more owners or occupiers of agricultural land employed solely for the purposes of their farms, and not let out on hire." Caleb Lee had no licence for his traction engine, and an information was preferred against him under Section 9. It was held that the conveying of farm produce to market was an employment for the purposes of his farm, and his engine was therefore an "agricultural locomotive," and exempted from the necessity of a licence.

Williams v. Wood (12 L.G.R., 646) is another case arising under the same Act. Section 6, Sub-section 1 of the Act enables bye-laws to be made to regulate the use of locomotives and "waggons" drawn by them on any highway, and a bye-law had been made by the Herefordshire County Council that a locomotive drawing two or more loaded or unloaded waggons should not travel on any highway without a communication cord from the rearmost waggon to such locomotive, and a person to travel in the rear of such waggons to signal to the driver to stop. It was held that the bye-laws were applicable to a locomotive plough engine drawing a set of scuffles which travelled on two wheels and a set of harrows which travelled on four wheels, but that in the case of two such locomotives with their gear closely following one another on a highway the Act allows the employment of five men only altogether, two in driving each engine and one to accompany them and give assistance. In the opinion of the Court the set of scuffles travelling on the road on three wheels and the set of harrows travelling on four wheels were vehicles, and fell within the definition of "waggons" in the Act.

Smith & Sons v. Pickering (31 Times L.R., 55) also turned on the meaning of the word "waggon" in the Locomotives Act, 1898, which by Section 2 requires the weight unloaded to be legibly affixed on waggons drawn by a locomotive. The vehicles in question, which were drawn by a locomotive, were a threshing machine and a straw-pressing machine. The Court held that each of the machines considered as a whole was a waggon, and must comply with the provisions of the Act.

Ledbury Rural Council v. Somerset (30 Times L.R., 534) was a case of "extraordinary traffic," and it was there held that traffic conveyed along a road adapted to it, and such as is to be expected in the ordinary course, is not "extraordinary traffic" within Section 23 of the Highways and Locomotives (Amendment) Act, 1878 (41 and 42 Vict., c. 77), so as to entitle the road authority to recover the expenses incurred in repairing the road in consequence of such traffic. The traffic in the case in question was heavy traction engine traffic conveying stone from a stone quarry adjoining the main road, and it was

found that the road had been used for such traffic for many years, although the output from the quarry had greatly increased recently.

In *Minty v. Glew* (12 L.G.R., 121; 110 L.T., 340) the respondent was proceeded against for keeping a carriage without a licence under the Customs and Inland Revenue Act, 1888 (51 and 52 Vict., c. 8), Section 4. The carriage in question was an old four-wheeled waggonette built to contain six persons and drawn by one horse, which had been altered by the respondent for use on his farm. He had removed the interior upholstery, strengthened and widened the wheels, and supplied stronger springs. His name was painted on the side in white letters. He had used it for general work of his farm, *i.e.* to take workpeople to and from work, potatoes to the railway station, bran to the farm, corn to the horses in winter, &c., and he had never used it as a private carriage or to carry passengers other than his workpeople. It was held that it was exempted from duty as being a vehicle "constructed or adapted for use and used solely for the conveyance of any goods or burden in the course of trade or husbandry," notwithstanding the possibility that it might be capable of being used for other purposes.

Two cases of nuisance deserve notice. In *Bland v. Yates* (58 Sol. J., 612) the occupiers of a dwelling house adjoining a market garden where intensive culture was practised suffered physical inconvenience from the smell and from the flies bred in a large heap of manure accumulated by the defendant for use on his market garden. The locality, Shepperton-on-Thames, was one where market gardening was carried on, but the collection of manure was in excess of what might be expected even in that locality. Mr. Justice Warrington held that the manure heap was a serious inconvenience and interference with the comfort of the occupiers of the dwelling house according to notions prevalent among reasonable English men and women, and that it amounted to a nuisance at law which should be restrained by injunction.

Wood v. Conway Corporation (83 L.J., Ch., 498; 1914. 2 Ch., 47) was a case of nuisance from fumes and smoke from the Corporation's gasworks, which had injuriously affected a plantation of trees adjoining the gasworks to such an extent that the tops were dying, while in some cases the trees were dead. There was no house on the part of the plaintiff's property affected. It was held by Mr. Justice Joyce and the Court of Appeal that although there was no house affected, the plaintiff was entitled to an injunction to stop the nuisance, which caused a serious growing and permanent injury to his property.

Lambert v. Rowe (83 L.J.K.B., 274; 1914, 1 K.B., 38) was a market case. The appellant, a farmer at his own house, which was in Ilfracombe, agreed to sell to a butcher in Ilfracombe two pigs at 10s. 6d. per score, and they were to be at the appellant's risk till delivered. He subsequently killed the pigs and delivered the carcasses to the butcher at his shop. The shop where they were weighed and the price ascertained was within the prescribed limits of the market town, but outside the market. The question was whether the farmer had infringed Section 13 of the Markets and Fairs Clauses Act, 1847 (10 and 11 Vict., c. 14), which forbids under penalty any person other than a licensed hawker selling within the prescribed limits of the market town, except in his own dwelling place or shop, any article in respect of which tolls are authorised to be taken in the market. Pigs were tollable articles in the market, but it was held that the appellant was not liable to a penalty because the agreement to sell amounted to a sale at his own dwelling house, and the sale was for the purposes of the Act there, and not at the butcher's shop, although as a question of strict law the sale was not completed and the property did not pass until the pigs were killed and the weights ascertained. A sale within the meaning of the Act was held to be what would be popularly so called, and not to depend upon niceties of the law relating to the sale of goods.

The only other case which need be noticed is *Petty v. Parsons* (84 L.J., Ch., 81; 1914 2 Ch., 653), in which it was held that the erection of a gate on a private right of way by the owner of the soil was not an obstruction of the right of the defendant to use the way provided that it was never locked, and kept open during business hours.

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AGRICULTURAL STATISTICS, 1914.

[NOTE.—On page 426, Vol. 74 (1913) of the Society's Journal, the yield per acre of hay, and the average yield for 10 years, appear to be given in tons, whereas the figures are *hundredweights*.

The Society is again indebted to the Board of Agriculture and Fisheries for their kindness in supplying, for inclusion in the Journal, the usual detailed and comparative tables of the latest agricultural statistics. For fuller information than can be given in the space available here, the Department's own admirable series of Reports on Agricultural Statistics should, of course, be consulted.—ED.]

ACREAGE.

In Table I. are given particulars of the acreage under crops, and the numbers of live stock. It will be noticed that the

total Area under Crops and Grass in Great Britain¹ in 1914 showed a continuation of the attrition in farm lands which has been going on without a break for over twenty years. Similarly, the steady replacement of arable land by grass continued in 1914 as regards England, although checked in Scotland and Wales, in which countries the loss of the total area under crops and grass was fairly evenly shared by both tillage and pasture. England, although losing only 7,000 acres all told, nevertheless, shows a decline in arable land of 55,000 acres, and thus, on balance, about 48,000 acres under the plough in 1913 were by 1914 turned down to grass.

Coming to individual crops, it will be seen that in the case of *Cereals*, Great Britain increased her wheat area by over 110,000 acres, or over 6 per cent., at the expense more or less of barley and oats, which lost about 60,000 acres each. England, which produces the bulk of our home-grown wheat, although not devoting so large an acreage to that crop as in 1911 and 1912 (in which years over 1,800,000 acres were sown), nevertheless, so increased the 1913 acreage that in 1914 she gave a larger area (1,770,000 acres) to wheat than in any other year since 1899. On the other hand, English barley, in dropping to 1,420,000 acres, lost 50,000 acres of the 100,000 gained in 1913. The shrinkage in oats was proportionately the same—2 per cent.—both north and south of the Tweed.

Of the *Pulse* crops, beans show an increase in Great Britain of 26,000 acres, or nearly 10 per cent. In England, where the bulk of this crop is grown, the increase has largely counteracted the decline in 1912 and 1913, and restored beans to within 8,000 acres of the large area (300,000 acres) of 1911.

Peas in England in 1914 gained nearly 5,000 acres, but were a long way below the exceptionally extensive area of 200,000 acres in 1912.

The 613,900 acres under *Potatoes* in Great Britain in 1914 represented not only an increase of 4 per cent. over the previous year, but in surpassing the 612,700 acres of 1912, established a new record for this crop, such a large acreage never before having been sown since the official returns were first collected in 1867. The increase over 1913 was made up of over 20,000 acres in England and Wales, and about 3,000 acres in Scotland.

As to *Root* crops, the almost unbroken wastage in the area under *Turnips* and *Swedes* in Great Britain since the 'seventies was again evinced in 1914, when a further 9,800 acres were lost, which, although comparatively small, being less than 1 per cent., makes altogether a decline of nearly 90,000 acres in

¹ Although for purposes of reference, Tables I. and II. give details also for Ireland and the United Kingdom as a whole, exigencies of space make it necessary to restrict the review to Great Britain.

the last three years. The loss in 1914 comprised about 8,500 acres in England and Wales, and 1,500 acres in Scotland.

Mangold, on the contrary, in showing an increase of 12,911 acres (3 per cent.) in England and Wales (the quantity grown in Scotland is quite small), tends, in spite of a drop of 66,000 acres in 1913, to maintain the increased popularity it has enjoyed since 1900.

Clover and Rotation Grasses show a further decline in acreage in Great Britain as a whole, but this is entirely due to the loss of 118,000 acres (5 per cent.) in England, there having been, in fact, increases of 3,500 acres in Wales, and nearly 8,000 acres in Scotland. In 1914 there were nearly 600,000 acres (over 20 per cent.) less under these crops in England than ten years previously.

Bare Fallow in 1914 accounted for 347,965 acres in Great Britain, of which 340,737 acres were in England and Wales, in which countries there was a reduction of over 47,000 acres as compared with the unusually large increase of 114,000 acres in 1913.

LIVE STOCK.

In 1914 the number of **Horses** used for agricultural purposes in Great Britain again declined, their numbers being 926,800, or over 18,000 (more than 2 per cent.) less than in 1913. In England and Wales, moreover, the number of unbroken horses also dropped, being over 10,000 less than in the previous year, including a diminution of nearly 4,000 in those under one year old.

Cattle increased by 129,000 in Great Britain as a whole, but in Scotland there was a decrease of 32,000, the large addition on balance being made up of 128,000 in England and 33,000 in Wales, the total head in England and Wales being 5,878,000, which is the largest number ever carried, with the exception of the 5,914,000 returned in 1911, and which indicates that the general tendency of recent years to increase the number of bovine animals appears to be still maintained in spite of the setbacks in 1912 and 1913, in which years the record number of 1911 dropped by nearly 200,000.

Glancing at the separate categories into which cattle are divided in the returns, it will be observed that in England and Wales the main increases were 200,000 in dairy animals (*i.e.*, cows and heifers in milk) and over 125,000 in cattle under one year old, against which "other cattle two years and above" diminished by 198,000. A good augury for the future was seen in the increase in England of nearly 30,000, or 5 per cent., in the cows and heifers in calf.

The persistent annual decline in the number of **Sheep** in Great Britain from the high figure of 27,600,000 in 1909 to the

lowest number on record in 1913 has now been checked, 1914 showing an increase of 354,000 (1.5 per cent.). The rise, however, was confined to Scotland (225,000) and Wales (214,000), England suffering a wastage of 84,000, which, although in itself comparatively small, created a fresh low record in the numbers returned for that country, which by 1914 had lost nearly 3,000,000 of the 16,500,000 sheep in which the progressive rise from 1905 to 1909 had culminated.

Examining briefly the details of the various classes of sheep, it is noticeable that all three countries showed gains in ewes (particularly Wales, 7 per cent.) and lambs (Wales 13 per cent. and Scotland 8 per cent.), whereas "other sheep one year and above" generally declined, dropping in England alone by 237,000 (9 per cent.). The gain of 45,000 in the number of ewes kept for breeding in England was very small compared with the heavy drop of 378,000 from 1912 to 1913, but taken together with the increased number of lambs tends to show that prospects for 1915 are somewhat brighter than last year.

Pigs followed suit with cattle and sheep in showing an increase in Great Britain, the numbers in 1914 being 2,634,000, or 400,000 (18 per cent.) higher than in the previous year. The increase was distributed throughout the three countries, being 348,000 in England, 31,000 in Wales, and 21,000 in Scotland, and was, moreover, proportionately shared by both sows and other pigs except in Wales, where the sows were slightly reduced.

PRODUCE OF CROPS.

The most outstanding feature of the produce returns of 1914 (see Table II.) is the large **Wheat** crop which, owing to the combination of an increase of 6 per cent. in the acreage and a yield well above the average, is for Great Britain as a whole 713,000 quarters (over 10 per cent.) greater than in 1913, and, moreover, is greater to an almost similar extent than the average annual production in the last ten years, in which period it was only twice exceeded. The importance from both the producer's and consumer's point of view of so satisfactory a crop coinciding with the outbreak of war needs no comment. For England particularly it will be noted that the average yield per acre is not only very good compared with the ten-year average, but is also over a bushel above the slightly under-average crop of 1913. It must be pointed out, however, that 430,000 of the 675,000 additional quarters produced in England in 1914 were only made possible by the increased acreage.

The total production of **Barley** in Great Britain in 1914 declined by 146,000 quarters (2 per cent.) as compared with the previous year. That the decline was not so heavy proportionately as the 3½ per cent. drop in the acreage was due to the

improved yield per acre. Scotland especially did well, the yield of 38.04 bushels per acre being quite a record, beating even last year's high figure of 37.15 bushels and being over 2 bushels above the ten-year average. Wales also exceeded the decennial average, but England, although improving by one-third of a bushel over 1913, was nevertheless slightly below her average yield per acre in 1904-1913. The reduction in the acreage in England quite outweighed the effect of the small improvement in the out-turn per acre, and the production in that country declined by over 142,000 quarters.

Oats more than made up for the loss of area, and yielded in Great Britain a crop greater than 1913 by 323,000 quarters, an increase of well over 2 per cent. As with barley, Scotland gave an exceptionally high yield per acre, which at 40.18 bushels was no less than $2\frac{1}{2}$ bushels above the average of the previous ten years, and was $1\frac{1}{2}$ bushels above the good results of 1913. England, although showing almost as great an advance over her 1913 yield per acre, had still an under-average crop as compared with the last ten years. Taking the previous three years only, however, England's yield was very satisfactory, the 40.16 bushels per acre standing out well against the 39.03, 35.56, and 38.51 bushels in 1911, 1912, and 1913, and being sufficient to give a total production greater by 153,000 quarters in 1914 than in 1913, notwithstanding the reduction of 42,000 acres in the area sown.

Like the cereals, Beans in Great Britain as a whole gave over-average yields in 1914, and were as much as 2 bushels better than the under-average yields of 1913. This, in conjunction with the greater acreage, made the total production of England in 1914 heavier by 168,000 quarters, or 18 per cent.

Peas were a very poor crop, the yield being only 23 bushels per acre, which was over $3\frac{1}{2}$ bushels below average, and the total production in England declined by just on 50,000 quarters, and was the lowest for many years.

A much more satisfactory yield was obtained, however, for Potatoes, the average return per acre of which although in England slightly below 1913 was still well over the decennial average for that country, as was also the case for Scotland and Wales, with the result that 1914 not only showed the largest acreage on record, but also the largest total production. Compared with 1913 the increase was over 60,000 tons (2 per cent.) in England and Wales, and over 106,000 tons (11 per cent.) in Scotland.

Turnips and Swedes, although showing an improved yield over 1913 of $\frac{1}{4}$ ton in England, remained an under-average crop both there and in Great Britain as a whole. Scotland did particularly badly in proportion to her generally superior

(Continued on page 111.)

TABLE I.—Acreage under Crops and Grass; and Number of *in*
Scotland, Great Britain, Ireland, and the United Kingdom

	England		Wales		Scotland	
	1914	1913	1914	1913	1914	1913
Total Area (excluding water)	Acres 32,368,998		Acres 4,760,155		Acres 19,060,897	
Total Acreage under Crops and Grass ¹	34,367,509	34,374,705	2,746,496	2,754,587	4,786,181	4,787,929
Arable Land	10,306,467	10,361,849	601,787	600,994	3,295,487	3,301,666
Permanent Grass ¹	14,061,042	14,012,946	2,054,708	2,053,593	1,490,694	1,486,263
Wheat	1,770,470	1,803,453	37,028	38,185	60,521	54,751
Barley or Bere	1,420,348	1,490,781	84,425	80,075	194,109	198,336
Oats	1,730,091	1,772,247	199,335	202,463	919,580	937,371
Rye	62,348	61,067	1,051	469	5,349	5,191
Beans	292,612	267,003	1,494	1,276	8,123	8,596
Peas	166,232	163,437	809	807	801	711
Potatoes	438,172	416,697	25,449	25,338	152,318	149,066
Turnips and Swedes	886,523	896,932	55,571	56,463	490,608	432,111
Mangold	421,336	409,150	11,031	10,308	1,927	1,861
Cabbage	51,407	54,626	777	790	5,015	5,252
Kohl-Rabi	15,680	14,272	89	129	10	10
Rape	64,773	62,422	5,688	4,973	8,764	7,761
Vetches or Tares	123,185	100,414	545	531	11,560	11,131
Lucerne	53,343	57,013	311	285	6	6
Hops	36,601	35,678	—	—	—	—
Small Fruit	76,311	75,784	1,027	1,073	7,371	7,111
Clover, Sainfoin, and Grasses under Rotation	2,121,541	2,239,510	259,810	268,322	1,481,909	1,474,910
Other Crops	147,207	131,290	1,418	1,384	2,518	2,411
Bare Fallow	335,308	361,116	5,529	6,789	7,228	8,256
Horses used for Agricultural purposes ²	No. 712,743	No. 726,795	No. 78,554	No. 80,621	No. 135,693	No. 138,016
Stallions	6,165	6,533	1,355	1,463	1,127	1,224
Unbroken	178,315	184,869	34,753	35,128	31,877	30,594
Horses } One year and above	82,289	84,312	18,817	21,542	13,080	13,555
Other Horses	778,512	1,002,444	134,459	138,854	182,217	183,301
Total	260,425	239,400	25,151	21,643	27,143	21,149
TOTAL OF HORSES	1,390,937	1,941,849	158,610	160,297	209,360	204,441
Cows and Heifers in milk	1,658,998	1,501,790	248,630	205,888	363,619	363,446
Cows in calf but not in milk	240,369	497,291	24,414	50,034	44,300	67,540
Heifers in calf	285,350	26,571	26,571	—	45,884	—
Other Cattle:—Two years and above	678,733	1,050,536	73,568	100,090	242,070	273,101
" " One year and under two	895,401	889,333	178,549	171,302	271,442	301,451
" " Under one year	1,000,086	952,259	215,747	189,022	247,759	241,316
TOTAL OF CATTLE	5,119,445	4,991,208	758,490	725,736	1,214,974	1,246,910
Ewes kept for Breeding	5,319,921	5,275,345	1,518,413	1,428,946	2,975,008	2,913,998
Other Sheep:—One year and above	2,415,106	2,652,044	736,445	768,561	1,106,983	1,214,457
" " Under one year	5,916,938	5,309,049	1,352,671	1,201,541	2,883,829	2,677,571
TOTAL OF SHEEP	13,651,965	13,736,438	3,607,529	3,393,848	7,025,820	6,801,126
Sows kept for Breeding	306,736	286,867	33,648	33,888	19,409	14,713
Other Pigs	1,653,215	1,664,653	187,852	156,694	133,359	117,040
TOTAL OF PIGS	2,259,951	1,951,520	221,500	190,582	152,768	131,753

¹ Not including Mountain and Heath Land.² Including Mares kept for Breeding.³ Above two years old used, or intended to be used, for service.⁴ Furnished by the Board of Agriculture for Scotland.⁵ Figures for Jersey include Water.

as returned on June 4, 1914 and 1913, in England, Wales, (including the Isle of Man and the Channel Islands).

	Great Britain		Ireland ¹		United Kingdom.	
	1914	1913	1914	1913	1914	1913
Total Area (excluding water)	Acres 56,208,960		Acres 20,248,397		Acres 76,457,357	
Total Areaage under Crops and Grass ²	31,900,185	31,927,301	14,742,788	14,091,147	46,783,916	46,740,904
Arable Land	14,293,741	14,360,187	5,027,082	4,978,500	19,414,168	19,431,718
Permanent Grass ³	17,606,444	17,567,114	9,715,684	9,112,647	27,349,650	27,369,188
Wheat	1,668,019	1,756,872	36,913	34,004	1,905,933	1,791,569
Barley or Bere	1,698,880	1,757,104	172,269	172,948	1,874,290	1,932,321
Oats	2,849,306	2,912,616	1,024,758	1,048,813	3,899,074	3,983,446
Rye	69,248	58,696	7,535	6,723	68,880	63,566
Beans ⁴	300,189	274,247	1,286	1,284	301,488	275,626
Peas	169,532	194,757	273	211	169,938	165,121
Potatoes	613,939	591,115	683,068	685,303	1,299,160	1,184,867
Turnips and Swedes	1,475,702	1,485,534	276,672	276,598	1,750,128	1,770,079
Carrots	434,394	421,295	61,570	78,914	516,883	501,053
Cabbage, Kohl-Rabi and Rape	152,174	150,198	39,169	38,212	192,145	189,045
Vegetables or Tares ⁵	135,290	112,132	2,157	2,267	137,751	114,710
Apples	36,661	35,676	—	—	36,881	35,676
Small Fruit	84,629	83,992	18,090	15,734	101,983	100,064
Turner, Sainfoin, and Grasses under Rotation	8,863,280	8,989,884	2,600,350	2,630,097	6,608,048	6,643,146
Other Crops	204,303	192,429	81,623	90,494	288,673	284,963
Idle Fallow	347,965	396,140	—	—	348,532	396,472
Horses used for Agricultural purposes ⁶	No. 926,820	No. 945,334	No. 393,644	No. 387,891	No. 1,298,781	No. 1,339,584
Unbroken (One year and above)	253,572	259,661	96,475	93,843	351,479	359,898
Broken (Under one year including stallions).	115,796	119,409	55,933	54,877	172,465	174,802
TOTAL	1,296,188	1,324,404	546,062	541,341	1,860,725	1,874,284
Cows and Heifers in milk or in calf	2,697,923	2,695,391	1,638,929	1,605,220	4,366,132	4,317,657
Other Cattle:—						
Two years and above	1,194,401	1,423,786	1,182,183	1,055,967	2,330,210	2,494,294
One year and under two.	1,446,392	1,462,086	1,141,161	1,109,681	2,506,688	2,581,241
Under one year.	1,514,202	1,382,391	1,139,072	1,101,757	2,662,169	2,563,138
TOTAL OF CATTLE	7,692,918	6,963,654	5,051,645	4,822,625	12,184,515	11,938,600
Ewes kept for Breeding	9,813,342	9,613,289	1,408,262	1,411,710	11,255,727	11,067,425
Other Sheep:—						
One year and above.	4,318,534	4,635,062	719,877	714,388	5,042,831	5,356,284
Under one year.	10,163,638	9,683,661	1,472,942	1,494,586	11,665,928	11,318,517
TOTAL OF SHEEP	24,295,514	23,931,412	3,600,561	3,620,734	27,968,977	27,692,226
Sows kept for Breeding	358,793	295,568	133,188	106,410	494,736	402,571
Other Pigs	2,274,456	1,638,287	1,772,450	864,850	3,457,676	2,908,200
TOTAL OF PIGS	2,634,249	2,233,855	1,905,638	1,060,360	3,952,415	3,308,771

¹ Figures for Ireland include Orchards.

² Furnished by the Department of Agriculture and Technical Instruction for Ireland.

³ Figures for Scotland relate only to Beans harvested as corn.

⁴ Figures for Scotland include Beans, Mashturn, &c. for Fodder.

⁵ Kohl-Rabi was not separately distinguished in Scotland.

TABLE II.—Total Produce, Acreage, and Yield per Acre of
1914 and 1913, with the Average

Crops	Total Produce		Acreage		Yield per Acre		Average of the Ten Years 1904-1913
	1914	1913	1914	1913	1914	1913	
WHEAT.							
	Qrs.	Qrs.	Acres	Acres	Bush.	Bush.	Bush.
England	7,184,997	6,511,859	1,770,470	1,683,453	32·47	31·32	31·54
Wales	181,086	180,319	37,028	38,185	28·32	27·34	27·28
Scotland	320,104	282,965	60,521	54,784	42·31	41·32	40·21
GREAT BRITAIN	7,638,187	6,925,143	1,868,019	1,756,372	32·71	31·54	31·70
Ireland	176,903	161,907	36,913	34,004	38·84	38·09	36·52
UNITED KINGDOM	7,815,090	7,087,050	1,904,932	1,790,376	32·82	31·67	31·88
BARLEY ² .							
England	5,842,100	5,984,454	1,420,348	1,466,779	32·91	32·57	33·07
Wales	332,449	338,586	84,425	80,075	31·50	30·99	31·01
Scotland	922,220	920,725	194,105	198,247	38·04	37·15	38·90
GREAT BRITAIN	7,097,489	7,243,585	1,698,878	1,757,098	33·42	32·98	33·29
Ireland	908,805	980,501	172,289	172,948	44·69	44·43	41·84
UNITED KINGDOM	8,066,274	8,304,066	1,871,165	1,930,046	34·49	34·01	34·03
OATS.							
England	8,684,650	8,531,574	1,790,082	1,772,247	40·16	38·51	40·64
Wales	900,413	847,283	180,535	202,458	36·10	33·48	35·15
Scotland	4,618,849	4,501,619	919,579	937,916	40·18	38·40	37·63
GREAT BRITAIN	14,203,912	13,880,456	2,849,196	2,912,616	39·88	38·13	39·47
Ireland	6,490,960	6,779,823	1,028,756	1,048,813	60·48	51·71	49·02
UNITED KINGDOM	20,694,802	20,660,279	3,877,954	3,961,429	42·69	41·72	41·94
BEANS ¹ .							
England	1,079,202	919,935	283,194	257,491	30·49	28·30	29·51
Wales	4,333	3,787	1,177	1,061	29·45	27·77	26·82
Scotland	29,432	27,879	6,125	5,968	38·44	37·37	36·34
GREAT BRITAIN	1,112,967	942,601	290,496	264,560	30·65	28·50	29·72
Ireland	6,948	7,708	1,236	1,394	44·97	48·78	42·08
UNITED KINGDOM	1,119,915	950,309	291,732	265,814	30·71	28·60	29·85
PEAS ⁴ .							
England	371,183	420,512	129,116	127,367	23·00	26·41	26·69
Wales	1,204	1,224	412	418	23·38	23·42	22·77
Scotland	690	642	194	208	24·38	24·69	27·67
GREAT BRITAIN	372,977	422,378	129,722	127,993	23·00	26·40	26·67
Ireland	1,065	867	272	211	31·32	32·49	28·00
UNITED KINGDOM	374,042	423,235	129,994	128,204	23·02	26·41	26·60

¹ The particulars for Ireland have been furnished by the Department of Agriculture and Technical Instruction for Ireland, and those for Scotland, by the Board of Agriculture for Scotland. No Produce Statistics are collected for the Channel Islands and the Isle of Man.

² Including Bere.

³ Excluding a certain area returned as picked or cut green amounting to 9,645 acres in England and Wales in 1914.

*Each of the Principal Crops in the United Kingdom in
of the Ten Years 1904-1913.*

Crops—continued	Total Produce		Acreage		Yield per Acre		Average of the Ten Years 1904-1913
	1914	1913	1914	1913	1914	1913	
POTATOES.	Tons	Tons	Acres	Acres	Tons	Tons	Tons
England	2,899,895	2,754,487	436,172	418,697	644	651	619
Wales	145,904	140,168	26,449	25,338	573	553	528
Scotland	1,077,578	970,803	152,320	149,080	707	651	650
GREAT BRITAIN	4,032,877	3,865,458	613,941	591,115	657	654	622
Ireland	3,445,770	3,739,348	583,069	582,368	591	642	598
UNITED KINGDOM	7,478,647	7,604,804	1,197,010	1,173,418	628	648	593
TURNIPS AND SWEDES.*	Tons	Tons	Acres	Acres	Tons	Tons	Tons
England	12,598,326	11,938,443	986,899	992,380	1277	1203	1304
Wales	852,455	867,480	56,509	56,463	1534	1519	1535
Scotland	6,311,477	7,530,203	430,609	432,139	1466	1698	1875
GREAT BRITAIN	19,762,258	20,124,526	1,473,047	1,480,982	1342	1350	1418
Ireland	4,433,491	5,169,292	276,872	276,536	1601	1878	1733
UNITED KINGDOM	24,195,749	25,313,818	1,749,919	1,757,578	1583	1440	1496
MANGOLD.†	Tons	Tons	Acres	Acres	Tons	Tons	Tons
England	7,719,680	7,434,471	420,535	406,150	1837	1817	1951
Wales	199,087	176,652	11,031	10,306	1806	1714	1796
Scotland	42,124	36,492	1,329	1,839	2184	1984	1939
GREAT BRITAIN	7,960,891	7,647,615	433,295	421,295	1857	1815	1946
Ireland	1,562,074	1,828,514	81,570	78,914	1915	2064	1928
UNITED KINGDOM	9,522,965	9,276,129	514,865	500,209	1860	1854	1942
HAY from CLOVER, SAINTFOIN, &c.	Tons	Tons	Acres	Acres	Cwt.	Cwt.	Cwt.
England	1,910,162	2,472,158	1,380,898	1,533,005	2747	3225	2950
Wales	210,757	236,910	164,009	167,478	2570	2829	2552
Scotland	629,158	688,518	408,254	415,116	3082	3516	3219
GREAT BRITAIN	2,750,078	3,397,586	1,963,161	2,115,597	2802	3212	2971
Ireland	1,464,638	1,833,654	939,711	909,748	3117	4051	3962
UNITED KINGDOM	4,214,706	5,281,040	2,902,902	3,025,345	2994	3458	3249
HAY from PERMANENT GRASS.	Tons	Tons	Acres	Acres	Tons	Tons	Tons
England	4,604,215	5,704,938	4,239,249	4,504,078	2172	2533	2395
Wales	544,714	638,313	545,377	585,614	1994	2267	2022
Scotland	240,316	268,738	158,661	157,111	3088	3294	2963
GREAT BRITAIN	5,389,245	6,601,993	4,942,287	5,228,803	2181	2526	2273
Ireland	2,803,999	3,562,055	1,547,772	1,572,074	3623	4532	4607
UNITED KINGDOM	8,193,244	10,164,048	6,490,059	6,798,877	2525	2990	2885
HOPS.	Cwt.	Cwt.	Acres	Acres	Cwt.	Cwt.	Cwt.
England†	507,258	255,641	36,861	35,678	1384	717	894

* Excluding a certain area returned as picked or cut green amounting to 36,313 acres in England and Wales in 1914.

† Excluding certain areas on which the crops were grown for the production of seed, amounting to 2,556 acres of turnips and swedes and 1,001 acres of mangold in England and Wales in 1914.

‡ No Hops are grown in any other part of the United Kingdom.

1914 and 1913, with the Acreage and Estimated Average Yield per Statute Acre, in each County of England in which Hops were grown.

COUNTIES.	Estimated total produce		Acreage returned on 4th June		Estimated average yield per acre	
	1914	1913	1914	1913	1914	1913
	Cwt.	Cwt.	Acres	Acres	Cwt.	Cwt.
East	94,877	47,365	6,174	6,103	15.37	7.77
Mid.	104,405	73,999	7,004	7,481	13.73	9.88
Kent Weald	110,422	65,480	8,848	8,360	13.50	7.83
Total, Kent	318,704	186,774	22,026	21,944	14.09	8.51
Hants	22,282	7,274	1,580	1,556	14.09	4.67
Hereford	70,478	22,138	5,507	5,439	12.80	4.07
Surrey	8,188	2,959	585	557	14.00	5.31
Sussex	43,960	22,536	3,036	3,889	14.49	7.99
Worcester	42,238	13,500	3,194	3,157	13.22	4.28
Other Counties ¹	1,408	460	133	134	10.59	3.43
Total	507,358	255,641	38,661	35,878	13.84	7.17

¹ Gloucester, Salop and Stafford.

TABLE IV.—Average Prices of British Corn per Imperial Quarter in England and Wales, as ascertained under the Corn Returns Act, 1882, in each Week of the Year 1914.

Week ended	Wheat	Barley	Oats	Week ended	Wheat	Barley	Oats
	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.
January 3	31 1	26 2	18 2	July 4	34 4	24 6	19 6
January 10	30 11	25 11	19 4	July 11	34 2	24 9	20 0
January 17	31 0	26 0	18 6	July 17	34 1	24 2	19 10
January 24	30 11	26 3	18 11	July 25	34 0	24 7	19 9
January 31	31 1	26 6	19 1	August 1	34 2	25 9	19 8
February 7	31 0	26 7	19 9	August 8	34 9	25 2	19 1
February 14	31 0	26 7	18 11	August 15	40 3	29 4	25 1
February 21	31 0	26 7	18 11	August 22	38 9	29 10	24 3
February 28	31 0	26 6	18 11	August 29	36 2	30 3	23 5
March 7	31 5	26 2	18 9	September 5	36 5	30 6	23 9
March 14	31 6	26 0	18 7	September 12	37 10	29 11	23 11
March 21	31 5	25 8	18 6	September 19	38 3	29 5	23 8
March 28	31 4	25 7	18 8	September 26	37 6	29 3	23 3
April 4	31 6	25 6	18 5	October 3	37 1	29 1	22 9
April 11	31 5	26 8	18 4	October 10	36 8	28 10	22 5
April 18	31 7	25 4	18 4	October 17	36 7	28 8	22 4
April 25	31 9	26 6	18 5	October 24	37 2	28 7	22 5
May 2	31 9	26 0	18 5	October 31	37 10	28 3	23 7
May 9	32 2	25 6	18 8	November 7	38 8	28 6	23 9
May 16	32 7	26 3	18 11	November 14	39 8	28 0	24 8
May 23	33 0	25 10	19 0	November 21	41 0	28 8	25 5
May 30	33 9	26 1	19 4	November 28	41 11	30 3	25 8
June 6	34 0	25 11	19 4	December 5	42 2	30 3	26 9
June 13	34 1	24 11	19 8	December 12	43 1	29 11	25 9
June 20	34 1	25 10	19 8	December 19	42 7	28 8	25 9
June 27	34 3	25 4	20 0	December 26	43 8	29 8	25 11
Average of year.					34 11	27 2	20 11

TABLE V.—*Annual Average Prices per Quarter and Total Quantities of British Corn returned as sold in the Towns in England and Wales making Returns under the Corn Returns Act, 1882, in the Year 1914.*

Year	Wheat	Barley	Oats	Wheat	Barley	Oats
	s. d.	s. d.	s. d.	Qrs.	Qrs.	Qrs.
1914	34 11	27 3	20 11	3,027,976	3,408,072	1,164,361

TABLE VI.—*Annual and Septennial Average Prices per Bushel of British Corn in the Year 1914, with the Value of £100 of Tithe Rent-charge.*

Year	Annual average price			Septennial average price			Value of tithe rent-charge of £100	
	Wheat	Barley	Oats	Wheat	Barley	Oats	Calculated on annual average	Calculated on septennial average
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	£ s. d.	£ s. d.
1914	4 ½	3 ½	2 7 ½	4 ½	3 ½	2 4 ½	80 16 8 ½	77 1 4 ½

TABLE VII.—*Average Prices of Wool in each Year from 1894 to 1914 inclusive.*

Year	BRITISH			
	Leicester ¹	Half-bred ¹	Southdown ¹	Lincoln ²
	Per lb. d. d.	Per lb. d. d.	Per lb. d. d.	Per lb. d. d.
1894	9 to 10	9 ½ to 10 ½	9 ½ to 12	10 ½
1895	9 ½ " 10 ½	9 ½ " 11	9 ½ " 11 ½	12
1896	9 ½ " 11	9 ½ " 10 ½	9 ½ " 11 ½	11 ½
1897	8 ½ " 10	8 ½ " 9 ½	8 ½ " 10 ½	9 ½
1898	8 " 8 ½	7 ½ " 8 ½	8 ½ " 9 ½	8 ½
1899	7 " 8	7 " 8 ½	7 ½ " 11	8 ½
1900	6 ½ " 7 ½	6 ½ " 8 ½	8 " 12	7 ½
1901	5 ½ " 6	5 ½ " 9 ½	7 ½ " 9 ½	6 ½
1902	5 " 5 ½	5 ½ " 6 ½	7 ½ " 9 ½	6 ½
1903	6 ½ " 6 ½	7 ½ " 8	8 ½ " 11 ½	7 ½
1904	8 ½ " 9 ½	9 ½ " 10 ½	9 ½ " 11 ½	10 ½
1905	11 ½ " 12	11 ½ " 12 ½	11 ½ " 13 ½	12 ½
1906	12 ½ " 13	13 ½ " 14 ½	14 ½ " 15 ½	14 ½
1907	12 ½ " 12 ½	12 ½ " 13 ½	13 ½ " 15	12 ½
1908	8 ½ " 8 ½	8 ½ " 10	11 ½ " 12 ½	8 ½
1909	8 ½ " 8 ½	10 " 11 ½	12 ½ " 13 ½	8 ½
1910	9 ½ " 9 ½	11 ½ " 12 ½	14 " 15	9 ½
1911	9 ½ " 10 ½	11 ½ " 12 ½	13 ½ " 14 ½	9 ½
1912	9 ½ " 10 ½	11 ½ " 12	13 ½ " 14 ½	10 ½
1913	11 ½ " 12 ½	13 ½ " 13 ½	14 ½ " 15 ½	12 ½
1914	12 ½ " 12 ½	13 ½ " 14 ½	15 ½ " 16 ½	12 ½

¹ Computed from the prices given in *The Economist* newspaper.

² Extracted from "The Yorkshire Daily Observer Wool Tables."

TABLE VIII.—*Yearly Average Prices of Fat Stock and Milking Cows in England and Wales during the Years 1905 to 1914.*

(Compiled from the Weekly Return of Market Prices.)

DESCRIPTION.	Quality	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
FAT CATTLE:											
	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Polled Scots . . .	1	7 9	7 8	7 11	8 2	8 5	8 9	8 5	9 3	9 3	9 4
	2	7 4	7 4	7 7	7 9	7 11	8 3	7 11	8 8	8 9	8 11
Shorthorns . . .	1	7 7	7 6	7 10	7 11	8 2	8 7	8 2	9 0	9 0	9 2
	2	7 0	6 11	7 3	7 3	7 5	7 9	7 5	8 1	8 3	8 5
Herefords . . .	1	7 9	7 8	8 0	8 1	8 5	8 8	8 5	9 2	9 3	9 3
	2	7 1	7 2	7 5	7 7	7 8	8 1	7 8	8 5	8 7	8 8
Devons . . .	1	7 9	7 10	8 2	8 3	8 5	8 9	8 4	9 0	9 2	9 2
	2	7 2	7 2	7 6	7 6	7 9	7 11	7 7	8 1	8 3	8 5
MILKING COWS:											
	per head	per head	per head	per head	per head	per head	per head	per head	per head	per head	per head
	s. s.	s. s.	s. s.	s. s.	s. s.	s. s.	s. s.	s. s.	s. s.	s. s.	s. s.
Shorthorns—											
In Milk . . .	1	20 11	20 13	21 1	21 5	21 7	22 3	22 2	23 1	23 15	23 15
	2	17 9	17 9	17 17	18 2	17 18	18 9	18 7	18 8	19 15	19 15
Calvers . . .	1	18 17	20 2	20 14	21 4	21 0	21 11	21 11	21 18	22 16	22 9
	2	16 17	16 19	17 11	18 2	17 16	18 5	18 0	18 2	19 4	18 19
Other Breeds—											
In Milk . . .	1	18 15	17 18	19 15	19 1	18 13	19 12	19 2	19 2	20 16	21 6
	2	15 7	14 14	14 16	15 0	14 12	15 14	16 6	16 3	17 13	17 14
Calvers . . .	1	17 8	14 11	14 5	14 8	14 11	16 1	14 12	16 9	16 9	17 4
	2	14 0	12 14	13 0	12 17	13 2	12 19	12 17	13 6	14 13	15 8
VEAL CALVES:											
	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	1	8	8	8	8½	8½	8½	8½	8½	8½	8½
	2	7½	7½	7½	7½	7½	7½	7½	7½	8½	8½
FAT SHEEP:											
	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Downs . . .	1	8½	8½	9	8½	7½	8½	7½	8½	9½	9½
	2	8	8	8½	7½	6½	7½	7	8	8½	8½
Longwools . . .	1	8	8½	8½	7½	6½	7½	7½	8½	9	9½
	2	7½	7½	7½	7	6	6½	6½	7½	8	8½
Crossbreds . . .	1	8½	8½	9	8½	7½	8½	7½	8½	9½	9½
	2	7½	8½	8½	7½	6½	7½	7	7½	8½	8½
FAT PIGS:											
	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone	per stone
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Bacon Pigs . . .	1	6 5	6 11	6 8	6 2	7 1	7 10	6 8	7 4	8 5	7 10
	2	6 0	6 6	6 3	5 8	6 7	7 5	6 2	6 10	7 11	7 4
Porkers . . .	1	7 0	7 6	7 2	6 7	7 6	8 4	7 3	7 8	8 11	8 4
	2	6 7	7 0	6 9	6 2	7 0	7 10	6 9	7 2	8 4	7 11

TABLE IX.—Quantities and Values of Imports of the principal Agricultural Commodities into the United Kingdom in the years 1912 to 1914.

Commodities	Quantities			Values		
	1912	1913	1914	1912	1913	1914
GRAIN AND MEAL	Cwt.	Cwt.	Cwt.	£	£	£
Wheat	109,572,539	105,878,102	103,944,543	46,445,233	43,848,173	44,741,473
Wheat meal and flour	10,180,478	11,978,153	10,059,429	6,518,504	6,347,771	5,548,238
Barley	20,126,224	22,439,248	18,142,922	7,371,561	8,077,100	5,895,183
Oats	18,900,400	18,182,083	14,162,815	6,338,451	5,871,067	4,878,594
Oatmeal, groats, rolled oats, &c.	832,218	868,877	610,493	602,574	607,761	503,212
Peas	2,674,707	1,978,315	983,711	1,261,602	1,006,735	548,849
Beans (other than Haricot)	1,256,741	1,540,405	1,441,209	470,847	568,189	503,620
Maize	43,677,338	49,154,853	39,047,107	13,583,216	13,769,793	11,763,341
Maize meal	610,810	491,827	232,469	240,827	182,413	78,895
MEAT						
Beef	8,645,106	9,901,082	9,877,960	15,806,508	18,874,346	23,285,104
Mutton	5,144,318	5,418,513	5,261,764	9,965,191	11,112,026	11,594,769
Pork (including Bacon and Hams)	8,057,952	6,447,746	7,059,253	18,379,935	23,163,627	23,851,896
Unenumerated (in- cluding Rabbits)	1,512,563	1,512,889	1,582,585	2,989,178	3,160,359	3,265,435
Total Dead Meat	21,359,939	23,278,230	23,581,568	47,137,812	55,309,358	62,107,157
Butter	4,005,159	4,139,028	3,983,821	24,354,193	24,083,688	24,012,926
Cheese	2,308,787	2,297,340	2,423,872	7,414,091	7,035,039	7,966,194
Milk, Condensed	1,221,686	1,252,136	1,226,838	2,315,354	2,185,462	2,157,282
Eggs	No. of Gt. Hun.	No. of Gt. Hun.	No. of Gt. Hun.			
	19,085,052	21,579,950	17,806,285	8,394,524	9,590,602	8,653,004

(Continued from page 106.)

yield, returning over 2 tons per acre below average, and nearly $2\frac{1}{2}$ below 1913, losing altogether 1,020,000 tons (14 per cent.) in the total out-turn. In England, however, there was a gain of 660,000 tons.

Mangold in England, although improving on the previous year's average yield, was over a ton per acre below the ten-year average. Largely owing to the greater acreage the total output in 1914 in that country was over 285,000 tons (nearly 4 per cent.) above 1913.

One of the worst crops of 1914 was **Hay**, the average yield in Great Britain being in the case of rotation grass nearly $1\frac{1}{2}$, and in that of pasture nearly 2 cwt. per acre below the average of the ten years, 1904-13. Coming directly after the very high yields of 1913, these poor results, together with the decrease of nearly 437,000 acres in the total area mown,

brought the total production of all kinds of hay in Great Britain down from 9,999,000 tons in 1913 to only 8,139,000 in 1914, a drop of 1,860,000 tons, or over 18 per cent. In England alone the reduction was 562,000 tons for clover, sainfoin, &c., and 1,101,000 tons for permanent grass.

Hops (of which fuller details are given in Table III.) attained in 1914 the remarkably high yield of 13·84 cwt. per acre, being no less than 6½ cwt. above 1913, and nearly 5 cwt. above the decennial average. The total production was increased by about 252,000 cwt., and was thus almost doubled.

PRICES IN ENGLAND AND WALES.

Corn.—The average price of British Corn per quarter in 1914 (see Tables IV. and V.) showed rises over 1913 of 3s. 3d. for wheat, of 1s. 10d. for oats, but a fall of 1d. for barley. In the small space at our disposal it is impossible adequately to discuss the true inwardness of the relationship between the war and the rise in the price of wheat and oats in the months of November and December last. In passing, however, it may be remarked that the average price of wheat in the two months immediately preceding the outbreak of war was 34s. 1d. per quarter, and thus already showed a rise of 1s. on the average for the corresponding period in 1913, and that the high price of November and December averaged only 41s. 5d. as compared with 43s. in June and July of the peaceful times of 1909.

The effect of the general improvement in the prices of British Corn in recent years is reflected in the steady rise in the value of Tithe Rent-charge as calculated on the septennial average—the nominal amount of 100l. being now actually worth 77l. 1s. 4½d. (see Table VI.), which represents an advance of 1l. 5s. 0½d. on last year, and is the highest value since 1890.

Wool.—The average prices realised for British Wool in 1914 (Table VII.) showed a further all-round advance, although not so great as that of the previous year over 1912. In the case of the Leicester, Half-bred and Southdown varieties, the mean increase was about ½d. per lb. The higher average for the year, as a whole, was mainly due to increases in the last two months, when prices ranged about 2d. per lb. above the corresponding months of 1913.

Live Stock.—From Table VIII. it will be observed that the average price in 1914 for fat cattle slightly exceeded even the unusually high figures of 1912 and 1913. Fat sheep also showed rises, but milking cows dropped somewhat in the case of Shorthorns, although rising for other breeds. Pig prices fell away from the record heights of 1913, but still remained good. It is noteworthy that the rise in the yearly average for

fat cattle ~~was~~ due entirely to higher prices in the last few months (for instance, best quality Shorthorns averaged 10s. 2d. per stone in December, 1914, as against 9s. 3d. in the same month of 1913), the prices up to July having been at a lower level than in the corresponding period of the previous year. On the other hand, pig prices in the last few months were consistently below those ruling at the end of 1913.¹

IMPORTS.

Supplies of foreign and colonial agricultural produce in 1914 (see Table IX.), although well maintained on the whole, showed considerable decreases in the case of barley, oats, maize, peas, and eggs. As to how far the effects of the war on trade conditions in the last five months contributed towards these decreases and influenced overseas supplies in general, is a subject too big for the limited scope of this article, but a few points adduced from an examination of the monthly Trade Accounts may, perhaps, be of interest. For instance, of the drop of 5,100,000 cwt. in the imports of Barley, as compared with the average supplies of 1912 and 1913, no less than 4,300,000 cwt. were owing to reduced shipments in the period August to December, when only 9,200,000 cwt. were received, as against an average of 13,500,000 cwt. in the corresponding periods of the two preceding years. As a result, the imports of barley in 1914, as a whole, were less than in any year since 1892. The decrease in Oats also occurred mainly in the war period, supplies after July 31 being only just over 4,000,000 cwt., as against even the exceptionally low quantity of 5,500,000 cwt. in the same period of 1913. (In both 1911 and 1912 supplies in this period were over 8,000,000 cwt., but in 1913 an unusually large proportion of the shipments was received earlier in the year.) On the other hand, Maize supplies in August-December were well up to average, and the heavy drop in the total (both as compared with 1912 and the heavy supplies of 1913) took place almost entirely before the commencement of war. As all our supplies of this feeding stuff are obtained from abroad, it is satisfactory to note that in the last two of the five months of war conditions in 1914, the imports of maize totalled 10,675,000 cwt., as against an average of 8,300,000 cwt. in the combined months of November and December in 1912 and 1913.

Turning to commodities intended for direct human consumption, it may be pointed out that although the Wheat

¹ For full information as to fluctuations in these and other agricultural prices, the reader should refer to the Weekly Market Prices Return of the Board of Agriculture and Fisheries, and to Part III. (Prices Section) of the annual Agricultural Statistics.

supplies in 1914 showed a small drop on 1912 and 1913, they were well up to the average of the five years 1909-1913. In fact, the reduction as compared with 1912 and 1913 was entirely owing to supplies in the first seven months being over 3,000,000 cwt. below the corresponding periods in those years. Imports after the outbreak of war were 47,100,000 cwt., as compared with 42,700,000 and 51,700,000 respectively, in the last five months of 1912 and 1913. **Flour** imports in 1914 were somewhat below the recent annual shipments, the slight shortage being due to diminished supplies in the war period—only 4,000,000 cwt. being then received, as against an average of 5,000,000 cwt. in the corresponding months of 1912 and 1913. By December, however, they had revived to within 10 per cent. of the normal for the time of year.

The imports of **Meat** of all kinds in 1914, although surpassing even the record total of 1913, suffered a slight check after the outbreak of war, there being only 8,600,000 cwt. received in August to December, as against an average of 9,200,000 cwt. in the same five months of 1912 and 1913. This, however, is possibly partly explained by the very heavy shipments in the first six months of the year, when 12,900,000 cwt. were received, against 10,900,000 cwt. in the corresponding period of 1912 and 1913. Imports more than revived in November and December, in which months a total of over 3,800,000 cwt. were received, as against less than 3,400,000 cwt. in the corresponding months of the two previous years. An article, the supplies of which have certainly been curtailed by the war, is the **Egg**, the imports of which, in the period August to December, 1914, fell by nearly 40 per cent. as compared with corresponding months in 1912 and 1913—the reduction being principally due to reduced supplies from Russia, and the complete cessation of supplies from Germany and Austria. In November and December an improvement took place, supplies in those two months being only about 540,000 great hundreds (14 per cent.), below the same months in the previous two years. Of the other articles, it must suffice to note that the **Butter** imports, after the commencement of war, showed a slight reduction, which is reflected in the figures for 1914, as a whole, whereas **Cheese** continued to arrive in the rather heavier quantities which had been noticeable in the earlier part of the year.

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THE WEATHER OF THE PAST AGRICULTURAL YEAR.

IN comparison with some recent years the weather of 1914 may be regarded from the farmer's point of view as somewhat tame and uneventful. The principal meteorological feature was perhaps the irregularity of the rainfall, the weather being as a rule either too dry or too wet. The absence of moisture in the spring months resulted in a poor hay crop, and in many districts considerable anxiety was occasioned by the disastrous night frosts, which occurred more particularly in the closing week of May. A deficiency of rain in the summer months was favourable to most of the cereals, but less so to the roots, which presented here and there quite an impoverished appearance. The harvest took place, however, under the finest possible conditions, and although the usual local exceptions were noted, the crops were, upon the whole, in excess of the average. In the autumn a long drought interfered rather seriously with the breaking up of the land, but after the middle of October good rains were experienced, the change in the weather leading, rather unfortunately, to one of the wettest winters on record.

THE WINTER OF 1913-14.

The winter of 1913-14 was, upon the whole, not only very mild, but also very dry, an unusual combination of events at such a season of the year. In the most open winters keen frost is however rarely unknown, and at the close of 1913 the country was visited by a touch of cold which proved the sharpest of the whole season. The lowest temperatures occurred on the nights of December 30 and 31, when the sheltered thermometer fell to 15°, or less in all but the eastern and south-eastern counties, where it barely touched 20°. At Rounton, in North Yorkshire, a reading of 9° was recorded, and at Garforth, Worksop, and Marlborough the thermometer sank to 10°. On the surface of the ground the frost was naturally more severe, the exposed thermometer at Worksop sinking on the night of December 30 to as many as 1° below zero. Snow fell at about the same time in nearly all parts of the country, heavily in the north: at Rounton the ground was covered on December 30 to a depth of 9½ inches. With the exceptions just noted, the frosts and snows of the winter were of the slightest possible description, but for about a fortnight around the middle of January, when a brisk Easterly wind drifted over from the Continent, the air was cold and searching, more especially in the south-eastern quarter of England, where the thermometer for several consecutive days rose very little above the freezing point. The latter spell of wintry

weather was followed by a long run of unseasonable warmth. In London (at Camden Square) the thermometer succeeded in reaching 50° or more on each of the eighteen days, January 24 to February 15, the longest consecutive run of warmth ever recorded in that locality during the winter season. The highest temperatures of the winter were observed in most places either at the beginning or about the middle of February. Between February 2 and 5 the thermometer in the screen touched 60° in several parts of North Wales and the adjacent English districts, while on February 14 a reading of 60° was reached at Woking. The winter included two periods of drought, each lasting for at least a fortnight, and in some places for even longer, the first of these dry spells occurring around the middle of December, and the second around the middle of January. At Durham, on the earlier occasion, no rain fell during a period of twenty days (December 5 to 24). The January drought was followed by a long run of wet weather lasting in many of the western districts until early in March. At Mallow, in Co. Cork, rain fell daily for a period of no less than forty-four days. The winter rains were, however, seldom of any unusual weight, falls of an inch or more in twenty-four hours being comparatively rare. In Lancashire a heavy down-pour occurred on January 8, when an inch and three-quarters was collected at Lancaster, and over two inches at Stonyhurst. The south of England was similarly affected on February 7: at Sheepstor, on the slopes of Dartmoor, more than an inch and three quarters of rain was measured, and at Princetown more than two inches and a half. The stormiest weather of the winter occurred in February, most of the gales being from a South-Westerly quarter. The boisterous spell appears to have culminated about the 21st or 22nd of the month, when a gale of great violence was experienced, more especially in the southern parts of the country.

For the winter as a whole the mean temperature was considerably above the average, but rainfall very deficient, the total amount in some parts of the northern and midland counties being less than two-thirds of the normal. Over the country generally the winter was considerably drier than either of its four immediate predecessors, but less dry than the winter of 1908-09. The duration of bright sunshine was slightly below the average in most districts, but a trifle above it in the south-east of England.

THE SPRING OF 1914.

The spring of 1914 opened with extremely unsettled weather, the month of March proving in many places one of the wettest on record. In the latter half of the season the

conditions were entirely reversed, a long continued deficiency of rain in April and May resulting in a serious check in the growth of pastures, and a consequent shortage in the hay crop.

Temperature was as a rule above the average, the warmest spells occurring respectively about the third week in April and at a similar time in May. On the former occasion the thermometer touched 75° in many parts of England and reached 76° at Halstead and in London (Camden Square). With the advance of the season the readings on the latter occasion were naturally somewhat higher, the shade temperatures between May 20 and 22 being slightly above 80° at a few scattered places in the east and south-east of England. Serious night frosts were, however, experienced from time to time in many inland districts. On or about April 16 and 26, and again on May 2, potatoes and fruit blossoms in the midland counties suffered considerable damage. Still later, when the state of vegetation was more advanced, widespread mischief was occasioned by a series of exceedingly sharp night frosts, which occurred between May 25 and 27. In a few scattered localities the young potatoes were entirely killed, and in a number of places the damage to fruit blossoms, more especially to strawberries and raspberries, is said to have been greater than for many years past. In the west and extreme south of England the frosts at this time were apparently too slight to cause any serious anxiety to the agriculturist or fruit grower.

Over a large portion of the western and southern districts the rainfall of March amounted to between two or three times as much as the average, and at a few places in the south-east of England to about three and a half times as much. In April and May there were two droughts, each extending over at least a fortnight. The April drought set in about the 10th of the month and continued until the close, some places in the south and south-east of England experiencing also an entire absence of rain during the first two days of May. Another rainless period commenced about May 11 and lasted in some of the southern districts until about the 27th. The two periods were separated by a week or more of very unsettled weather. On May 8, and, singularly enough, a fortnight later, on May 22, the neighbourhood of Oundle, in Northamptonshire, was visited by a severe and destructive hailstorm, some of the stones observed on the 22nd being as much as an inch in diameter. Thunderstorms occurred in many districts between March 19 and 26, between April 2 and 10, and again on May 22 and 23.

The mean temperature of the spring was above the average in all parts of the country. Rainfall was deficient in most of the northern and central districts, but considerably above the normal in the south and south-west. Owing mainly to the

brilliant weather of April, the total duration of sunshine in the south-east of England was in excess of the average. In most other districts there was a slight deficit.

THE SUMMER OF 1914.

The summer was characterised by a good deal of changeable weather, but was, for the most part, fair and dry. In some localities, a deficiency of rain interfered rather seriously with the growth of the roots, but upon the whole the crops progressed favourably, a general prevalence of fine weather at harvest time resulting in a cereal yield of average quality, and in the majority of instances of more than average abundance.

Although the temperature was as a rule above the normal there were few spells of really hot weather, the thermometer seldom rising much above 80°, and very rarely indeed above 85°. In June no real summer warmth was experienced until very nearly the end of the third week. Between the 17th and 20th of the month the shade temperature succeeded in touching 80° in several parts of the country, while in the closing week it reached 85° in a few isolated parts of the eastern and southern counties. The hottest day of the year occurred pretty generally on July 1, when the thermometer rose to 85° or more in many districts, and touched 90° at a few places in Surrey. In the London area the heat was still greater, a shade maximum of 92° being reached at Greenwich, and a reading of 94° at Camden Square. During the remainder of July the thermometer only once rose as high as 80° (on the 13th and 14th), but in August such readings were more common, the warmest weather occurring about the middle of the month. On the 13th and 14th the thermometer exceeded 80° not only in the normally warm regions in the midland and southern counties, but also in North Wales and the north-west of England, where extreme heat is rare. At Scaleby, Manchester, and Llandudno, the thermometer on the 14th reached 85°, while at Holyhead it touched 86°.

June was upon the whole a very dry month, the rainfall at a large number of places in the south of England and also in Scotland being less than one fourth of the average. Another dry period occurred in August, chiefly in the second and third weeks, when many districts experienced an entire absence of rain, lasting from ten to twelve days, and at Chelmsford for as many as sixteen days. At other times during the summer the weather was of a more variable character, few places escaping without at least two or three thunderstorms of more than ordinary severity, and with an occasional downpour of torrential rain. On June 8 and 9 smart thunderstorms in the northern and central districts deposited a rainfall exceeding an

inch and a half in many places, and amounting to nearly two inches at Ushaw, near Durham. Storms of far greater severity occurred on the 14th in an area lying a little to the southward and westward of the Metropolis, the rainfall in the space of a few hours amounting to two inches or more in several localities, and to as much as 3.3 in. at Ashford, in Middlesex, 3.5 in. at Staines, and 3.7 in. at Richmond Park. In the southern suburbs of London the storm was unusually violent, and at Wandsworth Common no fewer than seven persons were killed by lightning. Severe thunderstorms and heavy falls of rain occurred in nearly all districts on July 1 and 2, and further heavy downpours, accompanied in many instances by thunder, were experienced in the north and east of England on July 15 and 16, in Wales and the south-west of England on July 19, in North Wales and the north-west of England on August 8, and in the western and north-western districts generally between August 23 and 25. On July 19 the rainfall amounted to 3.0 in. at Milverton and to 3.1 in. at Wellington, in Somerset, while on August 8 the observer at Pen-y-Gwryd, at the foot of Snowdon, recorded in the space of twenty-four hours no less than 6.4 in.

For the summer as a whole the mean temperature was a little above the average. In the Midlands and also in the north-eastern and south-western districts the total rainfall was also in excess, but in most other parts of the country there was a deficit, the driest weather occurring in the eastern counties. Most places experienced more than the average quantity of bright sunshine, but in the midland and south-western counties the duration was in close agreement with the normal.

THE AUTUMN OF 1914.

The earlier half of the autumn was for the most part exceedingly fine, warm, and dry, the weather being eminently favourable to the thousands of troops in training for the war, but less satisfactory to the farmer, who would gladly have welcomed a few periods of refreshing showers. The cereal crops continued to be gathered in with scarcely a single interruption, but the roots suffered considerably from the drought, and in many localities the drying up of wells and streams led to a serious deficiency in the water supply. Towards the middle of October the weather gradually broke up, and in November the rainfall was in most cases sufficient for all ordinary requirements.

Temperature, though usually above the average, seldom rose to any very high level, a feature noticeable, as we have seen, during most of the summer months. The greatest warmth occurred at the beginning of September, the thermometer on the 2nd and 3rd rising slightly above 80° in many parts of the

(Continued on page 124.)

**Rainfall, Temperature, and Bright Sunshine experienced over
England and Wales during the whole of 1914, with Average
and Extreme Values for Previous Years.**

RAINFALL									
TOTAL FALL					NO. OF DAYS WITH RAIN				
Districts	For 48 years, 1866-1913				For 33 years, 1881-1913				
	In 1914	Average	Extremes		In 1914	Average	Extremes		
			Driest	Wettest			Smallest	Largest	
North-eastern	24'8	25'5	In. 19'9 (1884 and 1905)	37'2 (1872)	183	188	182 (1884)	208 (1881)	
Eastern	25'5	24'9	19'1 (1874 and 1887)	33'1 (1872)	181	181	156 (1898)	205 (1881)	
Midland	28'6	27'6	19'2 (1887)	39'8 (1872)	179	179	148 (1887)	210 (1881)	
South-eastern	33'5	28'9	21'6 (1887)	41'7 (1872)	177	174	137 (1899)	197 (1881 and 1903)	
North-western with North Wales	36'2	37'7	24'9 (1887)	50'2 (1872)	199	200	163 (1887)	226 (1903)	
South-western with South Wales	46'1	41'7	28'3 (1887)	68'6 (1872)	207	200	159 (1887)	235 (1881)	
Channel Islands	39'6	32'1	26'2 (1887)	41'8 (1910)	203	210	169 (1899)	261 (1886)	

MEAN TEMPERATURE					HOURS OF BRIGHT SUNSHINE				
Districts	For 48 years, 1866-1913				For 33 years, 1881-1913				
	In 1914	Average	Extremes		In 1914	Average	Extremes		
			Coldest	Warmest			Cloudiest	Sunniest	
North-eastern	49'2	47'6	44'8 (1879)	49'0 (1868)	1522	1330	1006 (1885)	1601 (1900)	
Eastern	50'2	48'7	45'6 (1879)	51'0 (1868)	1602	1580	1267 (1888)	1864 (1899)	
Midland	49'4	48'5	45'6 (1879)	51'1 (1868)	1463	1397	1156 (1912)	1715 (1893)	
South-eastern	50'7	49'8	46'7 (1879)	51'4 (1868)	1795	1614	1245 (1888)	1983 (1899)	
North-western with North Wales	49'5	48'6	45'7 (1879)	50'3 (1868)	1602	1399	1198 (1888)	1683 (1903)	
South-western with South Wales	50'4	50'0	48'1 (1888)	52'8 (1868)	1630	1633	1294 (1912)	1964 (1892)	
Channel Islands	52'7	52'2	50'7 (1885)	54'3 (1899)	1900	1882	1636 (1913)	2300 (1893)	

NOTE.—The above Table is compiled from information given in the Weekly Weather Report of the Meteorological Office.

For the Channel Islands the "Averages" and "Extremes" of Rainfall and Mean Temperature are for the thirty-three years, 1881-1913.

Rainfall of 1914 and of the previous Ten Years, with the Average Annual Fall for a long period, as observed at thirty-eight stations situated in various parts of the United Kingdom.

stations	1914		Rainfall of Previous Years											Average rain- fall
	Total rain- fall	Dif- ference from average												
			1913	1912	1911	1910	1909	1908	1907	1906	1905	1904		
ENGLAND AND WALES:														
Burham	259	- 3	234	292	230	249	248	194	243	239	192	190	238	
Burham	263	+ 5	205	330	281	246	248	218	263	267	207	208	251	
Burham	276	+ 2	244	350	267	313	278	252	263	285	230	216	271	
Burham	272	+ 8	226	336	304	285	242	225	219	280	226	210	253	
Burham	293	+ 4	187	273	190	228	231	176	212	224	190	176	225	
Burham	274	- 1	220	336	270	297	268	234	253	263	248	232	277	
Burham	238	- 4	223	301	194	247	252	213	235	217	186	200	246	
Burham	377	+16	312	389	238	365	377	333	319	343	267	283	326	
Burham	272	+ 8	298	329	254	364	240	239	267	236	240	250	264	
Burham	329	+10	305	362	243	332	321	245	269	262	251	288	300	
Burham	285	+ 7	232	325	209	280	275	239	269	240	219	227	252	
Burham	271	+13	219	280	231	255	287	222	234	339	226	212	240	
Burham	300	+ 4	307	259	298	289	314	220	233	287	269	246	288	
Burham	370	+19	320	373	304	336	381	278	308	331	262	310	311	
Burham	501	+ 6	421	541	442	533	488	483	500	487	388	396	472	
Burham	353	+ 2	298	406	311	375	370	335	339	370	298	285	347	
Burham	260	-10	269	302	253	286	284	289	266	281	240	251	288	
Burham	313	+ 1	318	330	305	367	320	308	263	316	281	280	309	
Burham	361	+ 2	415	410	368	389	331	385	372	426	282	318	355	
Burham	397	+15	310	447	290	424	368	266	343	301	250	300	345	
Burham	419	+19	374	478	350	468	344	275	334	339	281	318	351	
Burham	469	+28	365	470	376	443	352	310	363	334	305	414	369	
Burham	343	+ 4	348	365	342	368	270	247	293	298	276	344	381	
Burham	381	+12	285	433	317	444	317	252	286	292	503	373	359	
Mean for the whole of England and Wales	335	+13	290	368	288	345	313	266	299	299	256	280	296	
SCOTLAND:														
Stornoway	500	+ 3	470	547	483	530	462	520	438	423	507	557	446	
Wick	287	- 3	246	325	274	325	336	320	298	332	323	253	296	
Aberdeen	287	- 6	238	293	276	271	304	280	287	315	285	237	306	
Balmoral	397	+12	312	383	289	375	308	262	318	391	356	249	356	
Leith	291	-13	179	253	199	263	271	221	307	302	102	284	242	
Marchmont	291	-15	261	319	317	289	342	307	338	389	274	261	343	
Fort Augustus	424	- 6	455	503	448	422	374	439	420	516	436	444	444	
Glasgow	361	- 7	362	410	363	392	393	358	426	401	307	337	388	
Mean for the whole of Scotland	418	- 5	404	464	417	432	418	431	445	463	414	421	438	
IRELAND:														
Belfast	350	+ 3	377	447	363	406	357	387	381	362	318	318	341	
Marine Castle	473	+11	457	491	423	535	407	473	452	416	390	449	428	
Armagh	321	+ 1	361	358	276	325	289	331	316	301	298	308	318	
Dublin	265	- 5	288	277	235	354	269	258	270	228	253	222	278	
Birr Castle (Parsons-town)	326	- 1	354	345	310	342	286	334	339	326	257	323	330	
Kilkeny	324	- 2	351	364	363	374	301	335	324	287	250	315	350	
Mean for the whole of Ireland	414	+ 6	419	410	365	410	353	392	397	367	346	389	393	

¹ The Average Fall is in nearly all cases deduced from observations extending over the forty years 1871-1910.

² The Mean Rainfall for each country is based upon observations made at a large number of stations in addition to those given above.

³ The figures for the years prior to 1906 are for Braemar.

[Continued from page 121.]

country, and touching 84° at Woking. The only other time at which the thermometer rose to any undue height was at the end of September or the beginning of October, when readings of 70° , or a trifle above it, were recorded in a few scattered parts of the country. In the third week of September the midday readings were mostly below 60° , and at several places in the north below 55° . The coldest weather of the autumn occurred in the third week of November, when sharp night frosts were experienced in most districts. In the shelter of the screen the thermometer on the 15th, 18th, and 21st fell at least 10° below the freezing point, a reading of 15° being recorded at Wellington, Shropshire, and a reading of 16° at Llangammarch Wells, both on the early morning of the 21st.

In the earlier half of September heavy falls of rain were experienced occasionally, mostly in the western or south-western districts. On the 7th the Cornish coast was affected, and on the 9th South Devon was visited by a downpour yielding as much as 2.2 in. at Sidmouth and 2.4 in. at Salcombe Regis. A considerable fall occurred on the 17th in North Wales and the north-west of England, but from that time onward to about October 12 or 13 there were many parts of the country which failed to experience any measurable quantity. In a number of localities the absolute drought extended over at least twenty-three days, at Ryde, Malvern, and Dursley for twenty-five days, and at Worcester Lodge, in the Forest of Dean for twenty-six days. The change in the weather which took place after the middle of October was very decided, but for the remainder of the autumn the rainfall was noted for frequency rather than for unusual weight. Large amounts were, however, experienced in the north and north-west of England between October 21 and 25, in Wiltshire and Dorsetshire on November 2, and in many of the western and southern districts on November 29 and 30. On the 29th more than 3 in. fell at Princetown, on Dartmoor, and between $3\frac{1}{2}$ and 4 in. in Snowdonia. On November 13 and 14 snow fell in the north of England, the depth on the ground amounting in many places to between 4 and 7 in.

The mean temperature of the autumn was above the average, but the total rainfall was considerably below it. London and some other parts of the eastern and south-eastern counties receiving less than three-fourths of the normal supply. The duration of bright sunshine was in excess of the normal, but in the eastern and central parts of the country the difference was small.

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NOTES, COMMUNICATIONS, AND REVIEWS.

On **Unicellular Animal Parasites**.¹—A Review.—One of the most important discoveries of recent times, is that minute animal parasites of unicellular structure are the agents responsible for many of the most ravaging diseases of man and the lower animals. Such organisms are members of that division of the animal kingdom known as the Protozoa. Comparatively few subjects have leaped into prominence with the rapidity that has been the fortune of the study of pathogenic Protozoa. It was not until Laveran's discovery of the malaria parasite in 1880 that the presence of these unseen foes was ever seriously entertained. Yet we know to-day that diseases of man, and also of horses, cattle, dogs, poultry, game, fish, bees, and silkworms are due to their ravages. Probably every species of vertebrate animal, and a large number of invertebrates, support one or more species of Protozoa within their bodies. Numerous forms are known to live in the blood of vertebrates, others penetrate the digestive system, some live within the muscles, in the reproductive system and in other parts—in fact few organs can be declared immune from their presence. The methods by which these parasites gain entrance into the tissues of their hosts can only be ascertained after difficult and prolonged research, and in numerous instances the mode of transmission still remains to be discovered. Many of the parasites are disseminated from one animal to another by their spores contaminating the food or drink, a method which is known as contaminative infection. Others are introduced through the punctures made by insects provided with piercing mouth parts, or by means of the bites of ticks—a type of infection which is termed the inoculation method. In the cases of fishes and amphibia, the protozoan parasites are conveyed from one host to another by means of the bites of leeches, which are abundant denizens of the waters in which they live. It must be remembered, however, that the greater number of the Protozoa are non-pathogenic, free-living organisms and abound in water, in the soil and elsewhere. Others live harmlessly in the digestive canal of various animals without causing any observable ill effects, but it is with the pathogenic rather than the harmless forms that Drs. Fantham and Porter are primarily concerned. The book before us has been written, they tell us, to satisfy a demand for a scientific but readable account of those forms of Protozoa which produce disease. It is essentially

¹ H. B. Fantham and Annie Porter.—*Some Minute Animal Parasites, or Unseen Foes In The Animal World*. London, Methuen & Co., Ltd. 1914. Pp. xi. & 319. With frontispiece and fifty-six text figures, 5/- net.

an elementary work, written in a clear straightforward style and as free as possible from the burden of technicalities.

The first chapter, of some eighteen pages, is devoted to introductory remarks on the Protozoa and the different classes into which they are divided, together with some general observations on their rôle in relation to disease. Chapter II. is given up almost entirely to sleeping sickness and its causative agent *Trypanosoma gambiense*. This parasite (Fig. 1) belongs to a group of Protozoa which are actively motile organisms living, so far as we know, entirely in the blood of vertebrates. It is carried from one human being to another by the agency of Diptera of the genus *Glossina*, which are commonly known as "Tsetse flies." So far only one species, *Glossina palpalis*, has been clearly implicated but it is improbable that it is the only one concerned

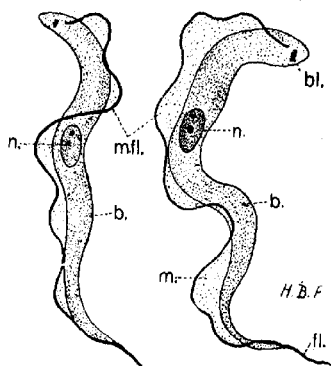


FIG. 1.—*Trypanosoma gambiense*, from Blood.
(Published by permission of the Authors and Publishers.)

in this nefarious business. The remainder of the chapter deals with a recently discovered parasite—*Schizotrypanum cruzi*, which brings about heavy mortality among children in South America. This organism is carried from one child to another through the bites of an Hemipterous insect known as *Conorhinus megistus* which is common in houses. The third chapter opens with an account of "nagana," a dreaded disease of domestic animals in Africa. It is allied to sleeping sickness in man, the pathogenic organism is also a species of *Trypanosoma*—(*T. brucei*) and it is, furthermore, disseminated from diseased to healthy animals by the bites of another species of "Tsetse fly"—*Glossina morsitans*. Mention is made of several other species of *Trypanosoma*, including that of "surra," which is a

fatal complaint of horses and other baggage animals in India and elsewhere. The remainder of the chapter is chiefly devoted to an account of flagellates belonging to the genera *Crithidia*

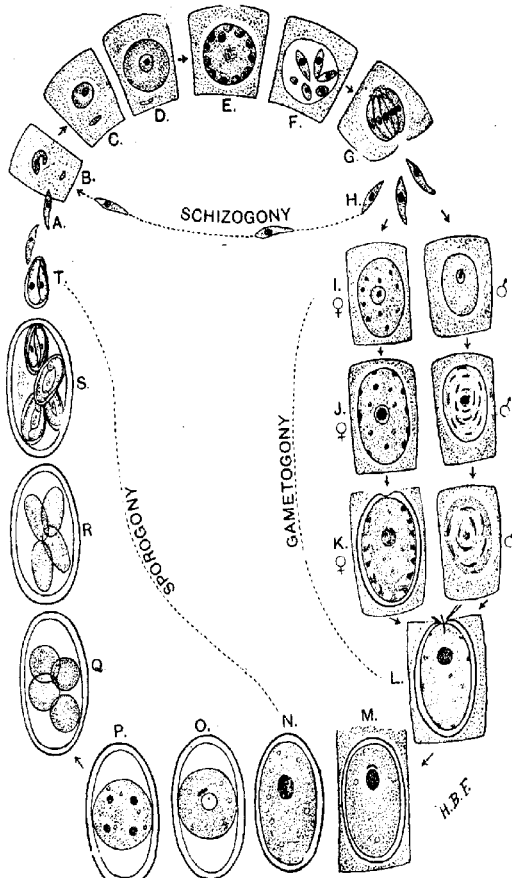


FIG. 2.—Diagram of Life-Cycle of *Elmeria avium*.
(Published by permission of the Authors and Publishers.)

and *Herpetomonas*, which occur in the digestive system of various flies and bugs. Especially interesting is a form which is parasitic in the sheep-ked (*Melophagus*). It is capable of penetrating the eggs of that insect with the result that the young sheep-ked may be born infected with the disease.

Chapter IV. deals with those little understood organisms which are known as Spirochaetes. An interesting account is given of certain species which live in mollusca and poultry, but no mention is made of the *Spironema pallidum* of syphilis which is probably responsible for more human suffering and discomfort than any other member of the Protozoa. Chapter V. is devoted to Malaria, and a good and well-illustrated account of the malaria parasite is given. Some useful remarks will be found on remedial and anti-malarial measures and the mosquitoes which transmit the disease. Chapter VI. deals with Coccidiosis, one of the enemies of poultry and a great destroyer of grouse. *Eimeria* (*Coccidium*) *avium* is the organism responsible for the disease in these birds, and one of the authors (Dr. Fantham) has conducted valuable researches on its life history, while working in connection with the Grouse Disease Inquiry. The parasite is restricted to the main digestive tract, especially the duodenum and caeca. In addition to poultry and grouse, it also causes fatal disease among turkeys, especially in America. In Fig. 2 we reproduce an excellent illustration showing the course of the life history of *Eimeria avium*. Certain other species of coccidiidae are the agents which bring about disease in rabbits, cattle, goats and in man. Further species occur in insects, mollusca and other invertebrates and appear to be injurious to them also. Chapter VII. is concerned entirely with the Amœbæ, with special reference to *Entameba coli* and *E. histolytica*, the latter being the main cause of amœbic dysentery. The eighth chapter deals with yellow fever chiefly from the medical aspect, and includes remarks on the *Stegomyia* mosquito which transmits it. With regard to the organism that is responsible for the disease we are still largely in the dark. The authors have included this chapter on yellow fever apparently in the belief that it will be ultimately discovered to be due to some organism of a protozoan nature.

Chapter IX. is of special interest to the stock raiser, as it deals with certain cattle diseases. The life-history of the *Babesia bovis* in the blood of cows suffering from "red water fever" is clearly described, and also *Theileria parva*, which is the pathogenic agent of "East Coast fever." Chapter X. is concerned with the parasites of Kala-azar, which is prevalent in India and China, and Oriental sore, a disease of much wider distribution. The eleventh chapter, of some twenty-four pages,

is one of the best in the whole book, and is of special interest to the apiarist as it includes a very full account of the Isle of Wight bee disease. It commences with reference to pébrine, a fatal disease of the silkworm, which was first identified by Pasteur with the parasite now termed *Nosema bombycis*. In dealing with the Isle of Wight disease, the authors speak with great authority, inasmuch as they discovered the organism responsible for it, and have elucidated much of what is known concerning its life-history (Figs. 3 and 4). Shortly after

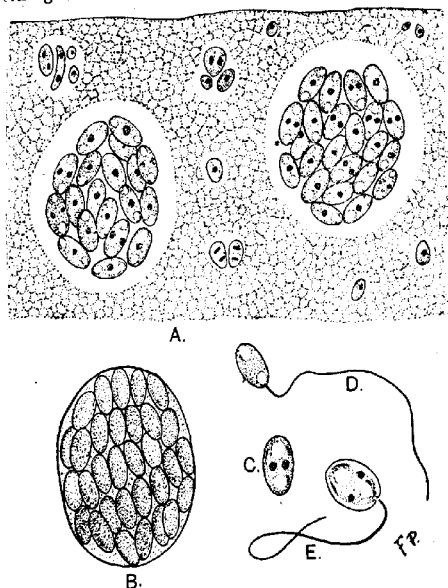


FIG. 3.—*Nosema apis*; Planonts and Meronts.
(Published by permission of the Authors and Publishers.)

Drs. Fantham and Porter's discovery, Zander in Germany met with the parasite and named it *Nosema apis*. In addition to bees the authors have succeeded in proving that the *Nosema* can also kill blow-flies, house-flies, sheep-keds and certain butterflies and moths. It is suggested that experiments to test whether it could be used to advantage against the tsetse-fly in tropical Africa are worthy of a trial. We must confess, however, that we do not see how the disease can be effectually

spread among blood-sucking insects, unless it be possible to distribute the *Nosema* spores in suitable places where the insects may congregate to drink in moisture. Unlike the species affecting silkworms, it has yet to be proved whether *Nosema apis* can be transmitted by the queens to the eggs and so produce infected young. So far as is known at present the disease does not seem to affect the brood to any appreciable extent. Chapter XII. deals with the Myxosporidia which are the agents bringing about disease in many species of fishes and also in certain crustacea. The barbel disease of the South of England is a noteworthy example, as well as the epidemics

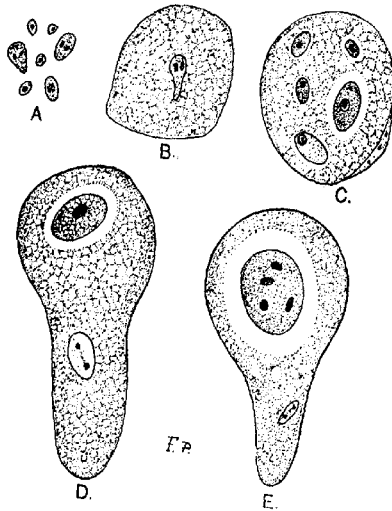


FIG. 4.—*Nosema apis*; Spores and Spore Formation.
(Published by permission of the Authors and Publishers.)

among trout and pike on the Continent. Chapter XIII. is concerned with parasitic Ciliates; these, however, are seldom associated with serious disease and are of less importance economically than many other groups. Chapter XIV. is devoted to the parasite of nasal polypus in man and to certain common muscle parasites of birds, mice and sheep. The concluding chapters of the book run to twenty-five pages, and contain general remarks on the relations of parasitic Protozoa

to their environment and the economic importance of those organisms.

Perhaps the best praise we can give to this book is that we wish it was longer. It should appeal to a wide circle of readers both at home and in the tropics, and will serve to emphasise the growing relationship of biology to medicine and agriculture. The book is well printed and the illustrations are very clear and well suited to serve the purpose of an elementary treatise. A novel feature is that, with the exception of the frontispiece, all are original and were drawn by the authors from their own preparations. The arrangement of the subject matter in the book may give rise to differences of opinion, and we think it would have been an advantage to have followed the zoological classification more closely. We admit, however, that the arrangement adopted interferes but little with the value of the information contained in the book. If a second edition be called for, references to the more important literature, placed at the end of each chapter, would add to the utility of the work. In conclusion, we may add that the perusal of such a book as this brings home to us the following words of Ray Lankester:—"Great is the contentment of those who have long worked at apparently useless branches of science—such as are the careful and elaborate distinction of every separate kind of animal and the life-history and structure peculiar to each—in the belief that all knowledge is good, to find that the science they have cultivated has become suddenly and urgently of the highest practical value."

A. D. IMMS.

"Agriculture—Theoretical and Practical."—A textbook of mixed farming for large and small farmers and for agricultural students.—John Wrightson, M.R.A.C., F.C.S., and J. C. Newsham, F.L.S. (628 pp., Crosby Lockwood & Son, 6s. net.) During recent years there has been a notable increase in the output of books dealing with agricultural subjects, and these later books may, like those of an earlier date, be divided into two groups—those which deal with agriculture as a whole, and are intended for the general farmer and the agricultural student, and those which deal more or less exhaustively with one particular branch of agriculture, and are intended for those farmers who have become specialists, and for lecturers and advanced students.

This book belongs to the first group, and is more ambitious than many others of a similar size, in that it includes not only sections on soils, manures, crops, live stock, feeding, buildings, machinery, dairying, and animal and plant diseases, but also on farm accounts, horticulture, poultry, rabbits, and bees.

It is, perhaps, necessary that a book which has been written with the object of presenting "a concise view of the practice of agriculture, both from an extensive and intensive point of view," should attempt to deal with such a variety of subjects, but a careful perusal of this book may easily lead to the opinion that the time is past when subjects of such width and importance can be adequately dealt with within the pages of one textbook.

In any case it is obviously desirable in any such book that the information given to the farmer and student be accurate and up-to-date in matters of scientific fact, and it is by its defects in this respect that this book may be most seriously criticised.

The section on soils and manures discusses very fairly many of the problems which confront both the farmer and the agricultural chemist, but students and others will require to read certain portions with their imaginations on the alert to catch the author's meaning, as the words and phrases used are occasionally rather different from what is usually found in an agricultural textbook. This is notably the case in the summary on the soil on page 8. It is also incorrect to describe clay as "composed of very minute particles, and therefore extremely porous and capable of retaining fertilising matter, of condensing gases and holding moisture."

In dealing with the soil and with manures the point is emphasised that it is not the intention of the authors to burden the pages with tables of chemical compositions, and readers are referred to textbooks dealing fully with these subjects. It is certainly the case that the inclusion of many tables of chemical analysis makes wearisome and difficult reading, and their omission is to a certain extent an advantage, but in the cases of artificial manures and of feeding stuffs the inclusion of concise tables of composition is highly desirable, both from the standpoint of the student who is on the threshold of a difficult subject, and of the farmer who wishes to purchase wisely and make use of the Fertilisers and Feeding Stuffs Act.

The chapters on crops contain much useful practical information without being in any sense exhaustive, but several of the illustrations have no textual explanations, and are therefore of no value (Figs. 25, 26, 27), while the spikelets of barley shown in Fig. 29, and said to show improvement effected by breeding, merely represent three different types of ears. Also on page 179, in speaking of the effect of spraying fluids, the reader is given the impression that Bordeaux Mixture is used for spraying charlock, whereas page 181 contains the definite and correct statement that for spraying charlock copper sulphate is used alone.

The section on live stock makes excellent reading, and the omission of descriptions of the individual breeds of live stock leaves room for the inclusion of much more important practical information and hints on general management; a chapter on farriery makes a valuable addition to the pages on horses. Following on the management of live stock, the subject of foods and feeding is dealt with. Much useful information is given, but on pages 286 and 292 there appears to be some confusion between the terms "carbohydrates" and "hydro-carbous"; also on page 294, where a comparison is made between green foods and cake, the statements made regarding starch equivalents can only lead to perplexity in the minds of readers who do not already understand the starch equivalent method of valuation of foods. Exception might also be taken to the suggested allowance of cake and meal (12 to 16 lb. per day) for a bullock during the last two months of fattening (page 233), and to the method suggested for calculating the ration for a cow in milk (page 299). The latter is much too complicated for the average farmer, and if followed in practice would result in underfeeding, as the allowance of albuminoids is insufficient for five gallons of milk.

The difficult subjects of Farm Buildings and Machinery are very fully dealt with, and many useful hints are given on the adaptation of old buildings to new uses. Both farmer and student will study the pages on farm engines and outdoor and indoor machinery with interest and profit, while the sections on farm labour and farm book-keeping are instructive and full of practical suggestions.

The importance of Dairying as a branch of Agriculture is fully recognised, and much care has been devoted to the preparation of the various chapters on this subject, and the information given on butter-making and the manufacture of the different kinds of cheese is superior to that usually found in books not specially devoted to Dairying. Where so much detailed information is given, perfect accuracy can scarcely be expected, and it is probably only by an oversight that it is stated that a cow is at her maximum for quantity and quality after the third to fifth calf. It is now well established that cows give their richest milk after the first calf.

The general reader will study with interest the section on Horticulture; the chapter on plant life is much more technical than any other in the book, dealing in an instructive and interesting manner with the structure and function of the various parts of plants. Occasionally definite statements are made on points where experts are by no means agreed, and in the pages on Mendelism it is scarcely correct to suggest that

either the presence or the absence of a character may be dominant.

Much useful information, which will be of material assistance to farmers and others, is given in the pages on Hardy Fruits, Vegetable and Flower Culture.

The chapter on Plant Diseases would have been improved by the inclusion of the scientific names of the various diseases, and no mention is made of the Corky Scab of the Potato, though this is now a notifiable disease. As regards fig. 291, p. 371, which is stated to represent bunt or smut—oblivious of the fact that these fungi belong to different genera—diagram B has no resemblance whatsoever to the spores of either bunt or smut, while C is obviously a transverse section of the head of a germinated ergot.

An extended index increases the value of this book as a work of reference to the general reader, but it is a matter for regret that an effort has not been made to attain to greater accuracy in statements of fact.

The authors refer to an alleged incongruity observed by farmers between the teaching of science, and the results of practice, and this undoubtedly has existed in the past, but if it is to be entirely dispelled, books written for the farmer must represent fairly and accurately the discoveries and recommendations of the agricultural scientist.

J. MACKINTOSH.

"Farm Accounts"—C. S. Orwin.—(Cambridge Farm Institute Series. Cambridge University Press. 209 pp., 3s. net). Absence of agreement among agriculturists with reference to the proper method of conducting various farm operations is common. About no part of their business however has there been more diversity of opinion than about the most useful system of book-keeping to be adopted. A vast number of ruled and printed account books are brought out to facilitate this work, and many text books are written to explain certain methods and the reasons for their adoption. Few of these seem to have given any general satisfaction. Agriculture, although it is the oldest industry, lags behind others of more recent origin in this respect. Problems which have been settled with regard to their management are only now coming up for consideration in farming. Hitherto, for example, men have not given much thought to the question whether agriculture is to be classed as a commercial or as a manufacturing business. Most of those who have written books on farm accounts, or who have got out sets of account books, have assumed that it belongs to the commercial class, and have written and arranged their books in accordance with this view.

Mr. Orwin, on the other hand, treats agriculture consistently as a manufacturing business. It differs from the butcher's business, in which a bullock is bought for a given amount one day, and sold retail within a week; from the dairyman's, in which milk is brought in in the morning and sold before night; and from the corn merchant's, in which corn is bought to-day and sold without any further expenditure on it within a few hours or a few months. The farmer's interest in the bullock may extend over two or three years, and it involves payments for feeding and attending all the time; his interest in milk may begin with the breeding of heifers, and is always concerned with feeding; his interest in corn extends from the time he begins to plough for the crop until he spends the last shilling on it in carting it to the market. Mr. Orwin argues that any system of account-keeping which ignores these operations and the details of expenditure on them is of little use to farmers. It is not enough that a man should know he has spent 800*l.* in wages, he ought to know how far each crop and each class of live stock have received benefit from this expenditure, and he cannot possibly gain this information through accounts kept on commercial principles.

The most common objection to the system of keeping accounts in the way Mr. Orwin advocates is that it involves too much labour. This is really not an objection at all, but an excuse, a confession that farmers do not think it worth their while, or are unwilling, or too indifferent, to bring their accounts into harmony with the character of their business. The making of money in any steady and straightforward way involves work; there is no better game than making money, and none that gives more lasting satisfaction, and the farmer who thinks that he can be more profitably occupied than in getting to know exactly how he is playing the game, and how he might play it better, may be left to discover his mistake. In the different chapters of this book Mr. Orwin explains a system of recording the money spent in producing each class of live stock and each form of produce. As an example, he works out a set of accounts for a moderate sized mixed farm, and with the help of this, and with the explanations in the text, it is possible for a farmer to adopt the system. Because it introduces a new principle in this sphere the book will exercise a special influence. The difficulty of the labour involved will soon be overcome, for farmers will find, as miners, engineers, shipbuilders and many others have found, that this kind of account-keeping is the part of their business which is most worth while their attention.

JOHN ORR.

SIR WALTER GILBEY, BART.

Born 1831. Died 1914.

In Sir Walter Gilbey, whose lamented death took place on November 12 last, the Society has lost one of its oldest and most valued members. His name was identified with many movements of vital importance in the world of agriculture, but most prominently with those pertaining to the horse. There is no organization having for its purpose the betterment of horse breeding with which Sir Walter was not associated, and in the work of which, at some period of his industrious life, he did not take a leading part.

Love of horseflesh was born in him. A son of Mr. Henry Gilbey, of Gilbey & Low, coach proprietors, of Bishop's Stortford, he would say he had been "reared in a stable yard." At the age of thirteen he was articled to a cousin, an estate agent at Tring. He had no particular taste for office work, but the business had the redeeming merit, in his eyes, that it involved much riding and driving about the country in connection with matters relating to the land.

Even in early days he had ambition, and the outlook offered by the land agency business did not satisfy; and when, in his nineteenth year, an opening occurred in the office of Mr. Walmisley, a Parliamentary agent, he made up his mind to take it. To change the country for London demanded self-denial; he disliked town life, and its most agreeable feature was the acquaintance he cultivated with livery stable keepers and horse dealers; with them he discovered a common interest, and from them he used to obtain mounts. His father's calling, he would say, was helpful here; Mr. Henry Gilbey used often to drive his own coach up to London, and he was widely known to those whose work lay among horses. Young Gilbey was still in the employ of Mr. Walmisley when, in 1854, the outbreak of the Crimean War turned his thoughts in a new direction. In the office he heard daily of the war and nothing but the war, and taking council with his younger brother Alfred, then a clerk in a wine merchant's business, he determined to go out to the East. It was the spirit of adventure; for the time he laid aside plans for getting on in life. Those who knew him need not be told that when he set himself to achieve a purpose he rarely failed to accomplish his end, and before long the interest of Sir Benjamin Hawes, a War Office official, was secured on the brothers' behalf.

Sir Walter used to refer to his stay in the east as memorable principally for the circumstance that while attached to the Pay Department at Renkioi he owned his first horse, purchased with his winnings at cribbage, a game for which, it may be remarked, he retained a passion to the end of his life.

With the close of the war in 1857 the brothers returned to England, and had then to face anew the problem of earning their livelihood. Walter was averse from resuming the status of clerk; he was now in his twenty-sixth year, and felt the strength that was in him, but the difficulty was to decide upon a career. The question was solved for him by his elder brother Henry, a wine merchant, who urged the two younger brothers to set up in the same business, and as Henry supported his advice with an offer of the small capital necessary to follow it, Walter and Alfred accepted both, and began operations in a cellar at the corner of Berwick Street and Oxford Street. Fifty years afterwards Sir Walter would point with reminiscent pride to the iron crane over the door of his first premises.

It was under the advice of Henry Gilbey that the two beginners devoted their attention to colonial wines, the reason being that the excise duty on these was less than half that levied on foreign growths, and their proportionately lower prices recommended them to the notice of consumers. They brought to their business energy, shrewdness, and tireless work, and during the first three years it became necessary to make two successive moves to larger premises. In 1860 came the "Gladstone Budget," which reduced the duty on all light wines and placed colonial and foreign growths on the same footing. The young firm saw the ground cut from under their feet; they had specialised in what were then called "Cape Wines," whose steadily increasing popularity appeared to offer good prospects of success, whilst now they seemed on the verge of ruin. It was characteristic of Walter Gilbey that he should have turned emergency into opportunity; the older firms adhered to their original price lists reaping large profits, for a time, from the reduced excise tariff; the young firm adopted the policy, at once bold and wise, of offering their numerous customers the benefit of the reduction, and thus gained a place from which those who ultimately followed their lead could never dislodge them.

Another feature of the "Gladstone Budget" of 1860 offered a chance the brothers were quick to seize. This was the introduction of the "off-licence," whereby grocers and others were permitted to sell wines and spirits. Theretofore the Gilbeys had dealt direct with their customers; now they set themselves to organise a system of agencies throughout the kingdom. The means they first adopted were original and reflect credit on

their ingenuity; at that time the railway system of the country was in its robust infancy, new lines were under construction all over the country, new stations were coming into existence, and the network of railways suggested an idea to the fertile mind of Walter Gilbey. In the station-masters he saw agents ready-made. Whether the railway companies saw in this enterprise means of economising in the matter of pay, or whether they thought fit to suffer this use of their servants with an eye to their own advantage cannot be said, but the fact remains that for some years station-masters in many parts of England acted as local agents for Gilbey's wines. In course of time the companies saw reason to confine their station-masters to their legitimate duties, but ere then the services of local tradesmen had been extensively enlisted, and the grocer took the place of the railway functionary. It was the agency system that enabled the brothers to extend their operations and bring their wares within reach of innumerable new consumers.

On the other side of their business, too, they assumed the rôle of pioneers, establishing direct relations with wine growers in France and Spain, and thus placing their trade on a more profitable footing than is possible with the intervention of middlemen. It was in 1867, only ten years after they began on the modest scale described, that the firm, now strengthened by the admission of Henry as partner, took the Pantheon and reconstructed the interior for their increasing needs.

It is unnecessary to trace the history of the firm beyond this point. The story of Sir Walter Gilbey's mercantile career is one that deserves detailed record as an object lesson; here it requires only such mention as shall show the man fairly embarked upon the road to the wealth he employed to further movements that come within the purview of readers of the Journal. He was thirty-three years of age when, in 1864, he found himself in a position to leave London and make a home in the country. It is not to be understood that he relaxed interest in his business—on the contrary he continued direction of his firm's affairs for the ensuing forty years—but money-making with him, from the first, was a means, not an end, and he used his independence to engage in those pursuits which most appealed to him. Moreover, he had now sound reason for seeking the country, for in 1858, while still at the beginning of his mercantile struggle, he had married, and he disliked the thought of rearing his children in town. He was a man who felt strongly the ties of family, and chose Hargrave Park, a few miles from his native place, as residence. Here he settled for a time and began to enjoy life; he bred his own pointers and indulged in the only form of sport with the gun

for which he ever cared—shooting over dogs—whilst he made a point of hunting at least once a week with the Essex or Puckeridge Hounds. With Captain Fairman he took the mastership of a pack of harriers, with which they hunted the country round. An advocate of hard work, he was also a believer in timely relaxation; even in the days of hardest struggle he used to spend Saturday fishing in the Stort as the only amusement he could then afford.

Few men have climbed to success more rapidly, but few have been endowed in equal degree with the qualities that make for success. His was a personality that made itself felt at first meeting, and it was impossible long to know him without falling under the spell of his influence. With rare force of character he combined shrewd penetration and unerring judgment; he had not only immense powers of work in himself, but the gift of bringing out the best powers of those associated with him. He had great organising talent, and with it alertness in marking opportunity and promptness to seize it; while above all things practical he possessed unfailing tact. That he was able at so early an age to delegate a great share of the responsibilities of his far-reaching business was the outcome of his ability to judge men; he might be slow to accord his confidence, but once given it was never withdrawn. He had in fullest measure the gift that above all makes the leader; he tried his man before he trusted him, and when he gave responsibility he displayed a Napoleonic indulgence towards errors of judgment. Hence no man was better served; hence his ability while still a young man to devote himself to those interests with which his name was so long identified.

A man whose love of horseflesh was so strong would, it might have been expected, begin by founding a stud, but Gilbey was first, and above all things, practical, and horse-breeding would have been a luxury. He could well have afforded it, but he was surrounded now with a growing family, and he combined their best interests with his own taste by establishing the herd of Jerseys he maintained for a number of years.

In 1874 he left Hargrave Park, and after a few years at Brighton took up his quarters at Elsenham Hall, in Essex, where he continued to reside until his death, and about this time embarked upon the first of the numerous schemes of horse-breeding in which he engaged. He had been impressed by the difficulty encountered by the farmers of the district in obtaining draught horses of reasonably good stamp at moderate prices; to solve the problem he established the Bishop's Stortford Horse Company, Ltd., in which farmers were the

Sir Walter Gilbey, Bart.

shareholders. Good stallions were purchased, and the holders had the use of them for their mares, with the result that before the company was wound up a distinct improvement was observable in the stock of the neighbourhood. A succession of bad seasons was the immediate cause of the end of the Bishop's Stortford Company, and, a shrewd man of business being the leading spirit, the undertaking was dissolved under conditions advantageous to the shareholders. Gilbey himself purchased two stallions, one of them being Spark, and therewith laid the foundation of the Elsenham stud of shires.

The scarcity and cost of powerful horses for agricultural work was a matter that remained with him as a thing to be dealt with by organised endeavour, and in 1878 he, with the co-operation of a few others, founded the body which for the first six years of its existence was known as the English Cart Horse society. He was a Member of the first Council, and in 1883 he occupied the President's chair. The history of any subject always possessed fascination for him; and it was his knowledge of the history of heavy horses that led him in 1884 to urge the claims of the title "Shire Horse Society" upon his fellow workers. The enterprise was a success from the first. The value of the Society's labours were soon recognised, and the late Duke of Cambridge voiced the general feeling of the agricultural world when, in presenting the founder with the Challenge Cup and Gold Medal at the Show of 1883, he thanked him for a "national service."

In 1883 he bore a leading part in the establishment of the Hackney Horse Society. The circumstance that England was to a large extent dependent on France and Germany for carriage horses bred to type was a potent factor in leading his thoughts in this direction. Persuaded as he was that English breeders, if they went the right way to work, could produce carriage horses as good as any brought from the Continent, he spared no effort to preach the merits of the old breed of harness horse, and set example by founding the Elsenham Hackney stud. Mention of his stud of hackneys recalls his spirited purchase of the famous sire Danegelt, for which he paid 5,000*l.*, when American buyers would have secured what was admittedly the best hackney stallion in the country.

His other work in connection with horse interests may be briefly summarised. In 1885 he realised in practical shape his scheme for inducing the drivers of horses in London to take greater interest in their charges, when, with the collaboration of the Baroness Burdett Coutts, he founded the London Cart Horse Parade Society, which holds its meeting every Whit Monday in the Inner Circle of Regent's Park. Battersea Park was the scene of the parade for the first three years, but the

assemblage reached dimensions which compelled a change, and Regent's Park was chosen as affording the required space. It had also the advantage of being at the founder's door, and Cambridge House received guests from all quarters of the world at the luncheon on Whit Monday.

In 1886 he lent valuable aid in organising the Hunters' Improvement Society. This was a scheme after his own heart. Hap-hazard breeding which left results to chance was anathema to him, and he devised a scheme which should afford owners of mares the opportunity of obtaining the services of good stallions. The premium system, whereby selected thoroughbred sires were made available at low fees to tenant farmers, bore such good fruit that the method was adopted by the Royal Agricultural Society and by the Royal Commission on Horse-Breeding.

He was twice President of these three societies; of the Shire in 1883 and 1897; of the Hackney in 1889 and 1904; of the Hunters' Improvement in 1889 and 1904. The 'eighties and 'nineties were perhaps the busiest decades of his life. He was still Chairman of the great business at the Pantheon, bearing active part in its affairs, and he filled an increasing place in the public eye as one of the foremost men in the agricultural world. He became Member of the Council of the Farmers' Club in 1885, a Governor of the Royal Veterinary College in 1886, President of the Smithfield Club, of which he had long been a member, in 1896, and President of the Polo and Riding Pony Society in the same year. His last office of the kind was that of President of the Shetland Pony Society, to which he was elected in 1903.

His connection with the "Royal" dated from 1870, when he became a member, and as was his invariable wont, an active one. In 1881 he was elected a Member of Council, a Vice-President in 1889, a Trustee in 1895, and in 1896 he was President of the Society on the occasion of the Leicester Show. In 1889 he became a Governor of the Society, and was elected Chairman of the Show Committee, an office which involved large responsibility in organising the Jubilee Show at Windsor.

In the years 1892-4 Sir Walter took a great interest in the acquisition of Harewood House for the Offices of the Society. In conjunction with the late Duke of Westminster, he was responsible for the purchase of the whole of the Harewood House site, and made such a disposition of the premises as to enable the Society to acquire the house, which had been altered in various directions, and furnished throughout, to meet their requirements, for a sum of 37,000*l.*, which amount was raised by the issue of Debenture Stock.

At the end of his Presidential year, in 1896, he provided the funds for the endowment, for a period of twenty-one years, of a lectureship in the History and Economics of Agriculture at the University of Cambridge.

In 1897 various schemes were advanced for commemorating the Diamond Jubilee of Queen Victoria, of which two found favour with Sir Walter. The first was the picture by Orchardson, containing the portraits of the three Royal Presidents—Queen Victoria, the Prince of Wales (King Edward), the Duke of York (King George)—and Prince Edward of York (Prince of Wales). It was largely owing to Sir Walter's energy, public spirit, and generosity, that the Jubilee picture of "The Four Generations" was painted, and subsequently handed over to the Royal Agricultural Society, on the walls of whose Council Chamber at 16, Bedford Square it now hangs.

The other scheme in which Sir Walter Gilbey showed equal energy and public spirit, was in connection with the "Queen Victoria Gifts" Fund, under which a certain number of grants of 10*l.* are made annually to those applicants for the annuities of the Royal Agricultural Benevolent Institution who fail in the particular year to obtain the necessary number of votes.

During the period of Sir Walter's activities on the Council very few questions came under discussion in which he did not take some part. Of course, the most important of these was the acquisition of what was intended to be the permanent Showyard for the Society in London. He did all that was possible for man to do in bringing Park Royal to the notice of Londoners, and there is no doubt that the lack of appreciation on the part of the public was a great disappointment to him and many of his friends who shared his aspirations.

He acquired an interest in the Royal Agricultural Hall Company in 1882, and became Chairman in 1890; and in this connection he did much to foster the success of the exhibitions held.

It was enough for him to be associated with any undertaking to ensure that sooner or later he would take the lead; the reason lay on the surface; he brought to the council board the qualities which had won his success in business—shrewdness, clarity of judgment, foresight, and practical knowledge of affairs.

Perhaps there was no incident of his career upon which he looked back with greater pleasure than the presentation by our late King, then Prince of Wales, of the portraits of himself and Mrs. Gilbey at the Royal Agricultural Hall in 1891. The facts that the roll of subscribers, 1,234 in number, included men of all ranks from peer to herdsman, and that the presentation was made by the Prince himself with one of those graceful speeches

for which he was famous, were precious memories. He used to refer to the incident as to the crowning epoch of his career. His well-deserved baronetcy was conferred two years later under circumstances of less formality, and derived additional value from the manner of its bestowal. To quote his own account, as well as memory serves :—"The Prince had come to see the horses, and after we had been round the paddocks, I took him upstairs to wash his hands in my bedroom. Of course I didn't know what was coming. The Prince was drying his hands when he said, 'We think, Mr. Gilbey, that some recognition of all your work is due to you. I shall be glad to be the means of securing it.' It took me aback, and I hardly knew what to say; I reminded him that he had presented me with my own and my wife's portrait with his own hands, and I considered that he had paid me a very high honour. The Prince said it had been a great pleasure to do it, but he thought something more was due to me: would I accept a baronetcy? I thanked him, and the thing was settled, and we came downstairs."

The prominent place he held in all matters connected with agriculture, more especially horse-breeding, brought him in personal contact with Royalty: he paid more than one visit to Sandringham, and was frequently honoured by requests for advice concerning the Prince's studs, advice no man in England was better qualified to give. He had an extraordinarily good eye for a horse, and that in the most subtle sense of the phrase: he took pardonable pride in his judgment in mating, a judgment proven by the long tale of successes won by the Elsenham stud in the show-rings of the kingdom. He knew himself to be a too exacting critic, and would sometimes refuse to inspect an animal he proposed to buy, delegating the task to some trusted friend. "I should be sure to pick a hole in him," he would say.

Retirement from active participation in business only left him with a little more time to devote to other occupations, and few men accomplished more with less display of exertion. When busiest he always gave the impression of a man of leisure, the truth being that he possessed the secret of engaging the eager co-operation of others upon whose good offices he could rely to carry out his plans. A curious trait in one of such active mind was his dislike of solitude, he hated being alone, yet when left to himself always found occupation, either with some scheme of practical work or making notes for one of the numerous books, the writing of which made one of the principal amusements of his later years. He was a great reader, but always of books bearing on his own subjects; he had wide acquaintance with the literature of the horse, also of

the history of English agriculture, and a favourite amusement was to take in hand some early work and "furrage up facts" as he expressed it. Sometimes his notes assumed, eventually, the shape of a concisely written, informing historical treatise. Of such were his *Horses Past and Present*, *Farm Stock a Hundred Years Ago*, and *Hounds in Old Days*. In some cases the text was supplied by his own observation or a current interest of the time. The attention devoted to the breeding of ponies for polo prompted him to investigate the history of our native breeds, and set out the information he had collected in *Ponies Past and Present*, subsequently republished as *Thoroughbred and Other Ponies*. The South African War and the difficulties with horseflesh gave him the text for his *Small Horses in Warfarr*. His mental activity was wonderful even when his eightieth birthday had been passed; the chance remark would pass unnoticed at the time, but it fell on fertile soil, and, it might be a month later, he would revert to the subject and sketch the article or essay it had suggested to him.

The instinct of the collector was highly developed in him, and his tastes were catholic. At various periods of his life he devoted attention to very various fields to find a passing pleasure, for example in valuable old snuff boxes or earthenware jugs. Such collections were, in a sense, playthings; their turn came to be forgotten, though the old interest was quickly stimulated by that of a visitor to whom they appealed. He took lasting delight in assembling relics of past times, and he possessed a singular variety of such articles, great and small: spurs for fighting cocks (he had been an ardent cocker in his youth), the man-trap of the old-time game preserver, ancient whips and horse gear, the sedan chair, the huge case-bottle used by our coaching ancestors on their slow journeys, the rude clip-holder for the ancient rushlight. It mattered little what the object was, provided always it suggested the uses of a bygone day, the thing was welcome.

Another of his enduring tastes was for silver, principally in the shape of old racing cups and statuettes. He had a famous collection of race cups, many of them gems of the silversmiths' art, and he added to them with careful discrimination. The turf records of the early eighteenth century were less exactly kept than they have been since, and the offer of an addition to his collection was always a small event. Some reliable friend would be asked to go and see the cup and copy the inscription, and then, if old *Racing Calendars* failed, county histories or other sources of information must be searched to verify the trophy. His was an inquiring mind, and he liked to know all there was to know concerning his possessions. Thus, after his firm had taken the Pantheon, he set to work to discover all

there was to learn about the building; the fruit of his industry remains in the shape of a great scrap-book wherefrom the history of the Pantheon from its inception as a public assembly room might be written.

With the head of a statesman he had, literally, the hand of a lady artist; it was small, beautifully shaped, with tapering fingers, and it betrayed one of his most conspicuous and abiding tastes—love of art. He began collecting pictures and engravings as soon as he had money to spare, and continued to do so till his last years. His taste in art reflected, to a great extent, his ruling passion—the horse. The works of George Stubbs and George Morland—of both of whom he wrote a “Life”—were his favourites, but he also attached high value to the paintings of such men as Alken, Herring, Abraham Cooper, Pollard, Cooper Henderson, Reinagle, and Frederick Taylor, among others. It did not suffice that a painter should satisfy with his portrayal of the horse, he must display all those merits in his work demanded by the professional critic, grace of composition, skill as a colourist, and the rest. He had a natural eye for good work on canvas, and this he had educated by long study. At the same time he exhibited the indulgence of a broad mind; it was an axiom with him that a picture of any given period must be judged by contemporary standards; hence what may appear a certain leniency in the choice of paintings used to illustrate his numerous books on the horse and other topics.

He took a keen interest in animal and bird life, more especially the latter, and while his outdoor aviaries containing birds from all parts of the world were a joy to him, he had usually some particular favourite as his constant companion. The place of honour was held for many years by a bullfinch.

Turning to more serious matters: after he took up his residence at Elsenham he was often urged to stand for Parliament, but consistently refused. “I thought I could do more good outside,” he would say. Despite his avowed antagonism to “Tories”—he would use the word as a term of reproach—it may be doubted whether he had any strong political bias; he was too judiciously minded to be a partisan. He regarded it as a compliment when told, in banter, that his radicalism was redeemed by feudalism. It expressed a truth: his attitude towards his poorer neighbours was that of the benevolent autocrat, and they adored him. In later years he professed leanings towards the extreme, but his conception of socialism was unorthodox. “I am a socialist, but I believe a man must help himself before he can help others.” He had helped himself, and largely, but from the hour success made the thing possible he helped others with the most generous

hand. It is characteristic of him in a double sense that the first public body he supported was the Royal Agricultural Benevolent Institution. He became a subscriber in 1869, and remained a pillar of strength to the charity till his last days.

The death of his wife in 1897 cast a great cloud over the lives of Sir Walter and his children. Lady Gilbey's place was taken, so far as it might be taken, by Sir Walter's eldest daughter, Mrs. Hine, the capable and enthusiastic helper of her father in his numerous undertakings in his latter years.

His industry was the more remarkable having regard to the fact that he was by no means a robust man. During his seventh decade and the earlier years of the eighth he was frequently confined to his bedroom by bronchitis and kindred maladies. With a bodily temperature one degree below the normal he suffered greatly from cold, and it was the exception, even on the hottest of summer days, to find him without a fire in the library.

He grew old gracefully; he never lost the dignity and self-mastery that lent him distinction. He had fought his way up from the bottom of the ladder, and made his name by works beneficial to his kind, and he was content. One by one the pursuits and interests which had made life so well worth living passed from him. When life ceases to be comedy death ceases to wear the face of tragedy, and in tranquil patience he waited for the end. He might have said with Landor :—

“I warmed both hands before the fire of life;
It sinks, and I am ready to depart.”

THE EARL OF FEVERSHAM.

By the death of the Earl of Feversham, which occurred on January 13, 1915, the Society has, with one exception, lost its oldest member of Council. Lord Feversham was born in 1829. He succeeded as third Baron in 1867, and was created first Earl of Feversham in 1868. His interest in agriculture was always keen, and he did much useful work in this connection. Duncombe Park, the late Earl's seat in Yorkshire, and at which place he passed away, has long been famous for its herd of Shorthorns, and in this he took a lively interest, never sparing expense in obtaining blood from the best strains, as for example when he purchased such valuable animals as the *Duke of Orford 20th*, for which he gave one thousand guineas at the Holker Sale in 1871, and *New Year's Gift*, for which he paid the same amount, in 1892, at the Windsor Sale. The original herd was founded by purchases, amongst

others, from the Brothers Colling in 1815, entries appearing in Volume I. of Coates' Herd Book. As far back as 1840 bulls were hired from him, and he bred some fine examples of the Duchess and Oxford strains. The character of the herd was also kept up by occasional purchases of highly-bred females when first-class stocks were dispersed, and several representatives of the Winsomes (a branch of the Wild-eyes), and also of the Kirklevingtons and Oxfords were obtained in this way. At a sale of Shorthorns at Duncombe Park in 1888 the bull *Duke of York 9th*, of the famous "Duchess" family, realised one thousand guineas; and many of the prize winners at the Royal Agricultural and Smithfield Club's Shows were bred in this herd.

Lord Feversham's connection with the Society has lasted over a period of fifty-three years. He joined it as a member on March 5, 1862, and was elected on the Council on April 5, 1876. He became Vice-President on April 11, 1888, and he was President of the Society, when the show was held at Warwick in 1892. He was also on two occasions President of the Yorkshire Agricultural Society, and had acted as President of the Shorthorn Society, and of the Cleveland Bay Horse Society, being interested in the breeding of horses.

From 1852-7 he was member of Parliament for East Retford, and from 1859-67 for the North Riding of Yorkshire.

Lord Feversham married Mabel, the daughter of the Rt. Hon. Sir James Graham, Bart.; his son died in 1881, and he is succeeded by his grandson Viscount Helmley, who, until his succession, was Member of Parliament for the Thirsk Division.

Lord Feversham was 85 years of age, and the Society will greatly regret the loss it has sustained by his death.

THE SHREWSBURY SHOW, 1914.

THREE-QUARTERS of a century of Royal Shows was completed by the exhibition held at Shrewsbury from June 30 till July 4, and the magnificent collection of exhibits displayed on the Old Race Course at Monkmoor did full justice to the importance of the occasion and was well worthy of the great agricultural district, for in many ways it excelled any previous show.

Two earlier "country meetings" had been held in Shrewsbury—in 1845 and in 1884. That in 1845 was the seventh to take place under the auspices of the Society and was the last to be held in a town without railway communication. At that time there was no railway beyond Wolverhampton, and the ground between that place and Shrewsbury was covered by omnibuses and coaches from London. The quality of the exhibits on that occasion was stated to have been "fully equal in merit and intrinsic elegance to the most numerously attended meetings of previous years." Like all the very early shows, however, it was not financially a success.

On the other hand, the "country meeting" at Shrewsbury in 1884 was most successful in every way, and the weather was good, despite occasional storms.

Comparative figures for the three Shrewsbury Shows are set out below:—

Year	President	Implements entered	Entries of live stock	Persons paying for admission	Financial Result (+ = Profit - = Loss)
1845	5th Duke of Richmond	942	437	(No record)	£ - 2,805
1884	Sir Brandreth Gibbs	5,241	1,664	94,126	+ 2,301
1914	Earl of Powis	5,428	3,394	87,803	- 3,616

Excessive heat marked the opening of the Show on Tuesday, June 30, which was, as usual, mainly taken up with the judging.

Amongst the visitors on the first day were the party of fifty farmers from South Africa, who were on a three weeks' tour of Great Britain by motor car, as the guests of the Union Castle Line. The object of the tour was to show the farmers who came over as much as possible of what might be interesting or instructive in the most modern methods of agriculture as now pursued in Great Britain. Visits were paid to many of the most notable examples of progressive farming in this country, with especial regard to live stock—which branch of agriculture is receiving ever-increasing attention in South Africa. On the day of their arrival (June 23), the Imperial Government welcomed them at an Official Luncheon at

Hampton Court Palace; and on the following day, by gracious invitation of His Majesty the King, the farmers visited Windsor to see the Royal Farms and His Majesty's famous herds of Sporthorn Cattle.

The tour was planned and undertaken in the interests of agricultural progress in South Africa and Rhodesia, and it is hoped that the benefits to be derived will be of a most far-reaching and permanent character. Arrangements were made by the various South African agricultural associations for lectures and discussions to take place on the return of the farmers to their respective districts, in order that the results of the tour might be made as widely known as possible throughout the entire country.

Lord Powis, as President of the Royal Agricultural Society, entertained the party to luncheon in the showyard.

During the day, the thermometer registered 84 degrees in the shade, and the heat was very trying to the live stock, particularly the pigs, some half a dozen of which died.

The number of persons who paid for admission (five shillings) was 2,166, which was the best opening day's attendance since the Liverpool Show of 1910.

On the Wednesday, the previous brilliant weather continued until about three o'clock in the afternoon, when there was a heavy shower. The sky cleared somewhat after this, but at five o'clock the rain came again and continued until the close of the show that evening.

The South African farmers were again present on the Wednesday inspecting the exhibits, and they were entertained to luncheon by Sir Richard Cooper, Bart.

At noon, Lord Powis presided at the Society's General Meeting of Governors and Members in the large tent. The judges' awards in the Farm Prizes and Plantations Competition having been made known, the President handed to John Eaton, of Myddle Wood, Shrewsbury, the certificate and silver medal awarded to him as the winner of the first Championship Hedging Competition organised by the Society, which had taken place on February 25, at Belvidere, Shrewsbury. Resolutions of thanks were enthusiastically passed to the Mayor (Major Wingfield) and the Corporation, and to the Shrewsbury Local Committee, under the chairmanship of Sir Bowen Bowen-Jones, for all the work they had done in connection with the Show. At the conclusion of the meeting, Lord Powis mentioned what a great pleasure it had been to him to receive the deputation of South African farmers. Having presided at the luncheon on the previous day, he could tell the members that their visitors were a most interesting and delightful body of men, extremely appreciative of the hospitality extended to

them and of everything they had seen or were about to see in this country. He was sure it would do an enormous amount of good to the British Empire to bring over people from the different Colonies to see every sort of thing in the old country.

Early morning rain on Thursday was succeeded by sunshine and a rise of temperature. About four o'clock, however, there was a violent storm, with loud peals of thunder and vivid flashes of lightning. Though the storm lasted little more than half an hour, the extremely heavy rainfall caused parts of the showground to be flooded for a time, but the water quickly disappeared.

An added attraction on Thursday was the opening of the two days' Championship Dog Show held in the Showyard under the joint auspices of the National Terrier Club and the Shropshire and West Midland Society, which was of a highly successful character.

In the evening, the Mayor of Shrewsbury gave a banquet at the Music Hall, in honour of the Society's visit, to members of the Council and the Corporation. Lord Lucas was also present as the representative of the Board of Agriculture.

Friday, the day of the Royal visit, opened with drizzling rain which continued until within a very short while of the arrival at the Show of H.M. the King. The Royal train reached Shrewsbury shortly before one o'clock, and His Majesty was met by Lord Powis (Lord Lieutenant of Shropshire and President of the Society). The route to the Show was by way of Castle Gates, Castle Street, Pride Hill, High Street, to the Square, where the Royal carriage was stopped opposite Lord Clive's statue, and an address was presented by the Mayor.

At this point there was an interesting incident. His Majesty had graciously consented to lay the foundation stone of a New Library at Shrewsbury School, and the head boy approached the carriage, bearing a model of the foundations. By touching an electrical button, His Majesty laid the foundation stone of the new building, and at the same time, a miniature of the stone dropped into position on the model. The procession continued by way of High Street, Wyle Cop and the English Bridge, to the Abbey, where a massed choir sang the National Anthem, and on through Abbey Foregate to the Show. At the entrance to the Yard Sir Gilbert Greenall, the Honorary Director, met His Majesty and conducted him to the Royal Pavilion, where Members of the Council and the Local Committee were assembled.

A number of Shropshire Naval and Military Veterans, under Colonel Lovett, were inspected at the side of the Pavilion. After luncheon, at which His Majesty honoured the President

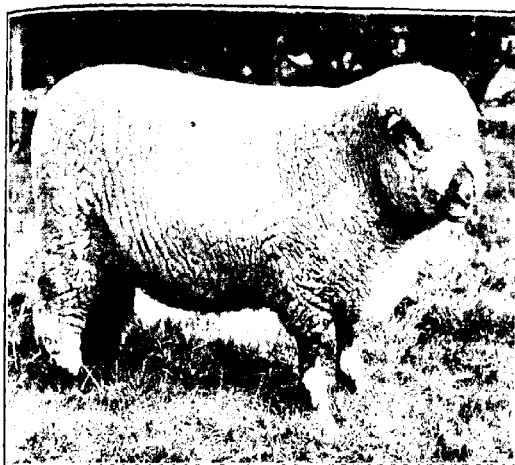


FIG. 1.—SHROPSHIRE TWO-SHEAR RAM.
Winner of Champion Prize for best Shropshire Ram, Shrewsbury, 1914.
Exhibited by MR. KENNETH W. MILNES.



FIG. 2.—SOUTHDOWN SHEARLING RAM.
Winner of Champion Prize for best Southdown Ram, Shrewsbury, 1910.
Exhibited by LADY WILMERS.



FIG. 5.—DORSET HORN SHEARLING EWES.

*Winners of Champion Prize for best Exhibit of Dorset Horn Sheep, Shrewsbury, 1913.
Exhibited by Mr. F. P. BROWN.*



FIG. 6.—KERRY HILL (WALES) TWO-SHEAR RAM.

*Winner of Champion Prize for best Kerry Hill (Wales) Ram, Shrewsbury, 1913.
Exhibited by Mr. WILLIAM ADAMS.*



FIG. 7.—KERRY HILL (WALES) SHEARLING EWES.
 Winners of Champion Prize for best Pairs of Kerry Hill (Wales) Ewes or Ewe Lambs,
 Shrewsbury, 1914.
 Exhibited by LORD HARTLEY.



FIG. 8.—LINCOLN SHEARLING RAM.
 Winner of Champion Prize for best Lincoln Ram, Shrewsbury, 1914.
 Exhibited by Messrs. ROBERT AND WILLIAM WRIGHT.

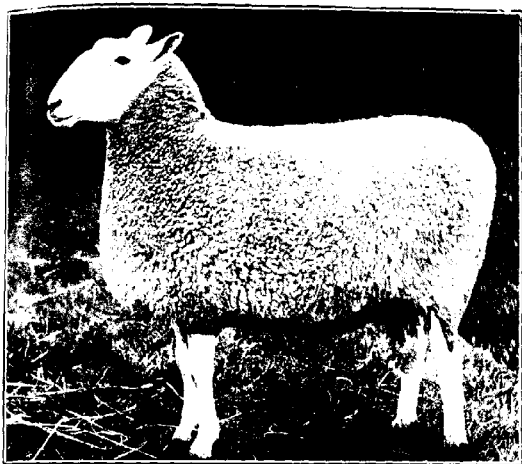


FIG. 9.—BORDER LEICESTER RAM BORN IN 1910.
Winner of Champion Prize for best Border Leicester Ram at Eng. Shrewsbury, 1913.
Exhibited by MR. JESSE G. SCOTT.



FIG. 10.—KENT OR ROMNEY MARSH SHEARLING RAM.
Winner of Champion Prize for best Kent or Romney Marsh Ram, Shrewsbury, 1914.
Exhibited by MR. S. W. MILLES.



FIG. 3.—SOUTHDOWN SHEARLING EWES.
Winners of Champion Prize for best Pen of Southdown Ewes or Ewe Lambs.
Shrewsbury, 1914.
Exhibited by SIR JEREMY COLMAN, BAET.



FIG. 4.—HAMPSHIRE DOWN RAM LAMBS.
Winners of Champion Prize for best Hampshire Down Ram Lamb, Pen of Ram Lambs
or Ewe Lambs, Shrewsbury, 1914.
Exhibited by MR. JAMES ARCHIBALD MORRISON.

and Council with his presence, a tour of the Showyard was made in an open carriage. Having seen the Produce exhibits and the Working Dairy, His Majesty was driven to the Live Stock section where the Royal and other Champion prize animals were inspected. A halt was next made at the exhibit of the Associated Portland Cement Company, which comprised a farmhouse and other buildings, in re-inforced concrete, for a small holding. Since the Show, these buildings have been taken over by the Salop County Council and the adjacent land is being worked as a small holding.

His Majesty having next inspected the exhibits in the Education section, drove through the Implement Department, stopping at the stands of firms to whom the Society's Silver Medal for New Implements had been awarded, and also at that of a local firm who are amongst the oldest exhibitors at the Show.

Having completed his inspection of the exhibits His Majesty drove round the large Horse Ring, alighting at the Royal Box, which he occupied for about half an hour, watching the Horse Jumping.

The return journey from the Show was made about 4.30, and His Majesty left for London by special train at 4.45.

The closing day, Saturday, was favoured with splendid weather, and among the visitors were a party of Siberian Farmers belonging to the Union of Siberian Co-operative Associations, who were over in this country studying agricultural co-operation.

The party, who were in charge of Mr. Wladyslaw-Baruch, spent a most strenuous day examining machinery and live stock, being more particularly interested in the pigs and ponies.

The reports of the Judges have this year been omitted, as it was thought that probably the very full particulars given in the list of awards printed in the appendix contains sufficient information for those interested in the animals exhibited at the Show.

Generally speaking the exhibition of live stock, produce, &c., was exceptionally good, and there has probably never been a better Show held by the Society.

Statements are given on pages 152-3 of the entries of Live Stock, Poultry, Produce and Implements, with corresponding figures for previous years.

On this occasion photographs are given of the various Champion Animals in the Sheep Classes.

A noteworthy feature of the Show was the exhibition of specimens of Black Welsh Sheep, sent by Lord Harlech and Lt.-Col. Peter L. Clowes, C.B. I am informed by Mr. R. M. Treaves that amongst the Welsh mountain flocks there are

[continued on page 154]

Entries of Live Stock, Poultry, and Produce.

	Shrewsbury, 1914	Bristol, 1913	Don- caster, 1912	Norwich, 1911	Liver- pool, 1910	Glos- ter, 1909	New- castle, 1908	Lincoln, 1907	Shrews- bury, 1884
Horses . . .	1819	1584	1773	1718	1698	1909	1984	1506	102
Cattle . . .	12772	11138	11089	11065	1038	11146	948	11030	74
Sheep . . .	1986	755	734	748	772	1002	1065	1072	186
Pigs . . .	424	394	426	416	361	433	512	368	210
Total . . .	5,401	2,852	3,022	2,943	2,767	2,990	2,619	2,576	1,604
Poultry . .	1,373	1,438	1,242	1,218	1,195	754	768	826	—
Produce . .	885	685	559	670	701	765	416	572	150

¹ Exclusive of Double Entries.

² Exhibition of Cattle, Sheep and Pigs prohibited by order of Board of Agriculture.

Shedding in Implement Yard (in feet).

Description of Shedding	Shrewsbury, 1914	Bristol, 1913	Don- caster, 1912	Norwich, 1911	Liver- pool, 1910	Glos- ter, 1909	New- castle, 1908	Lincoln, 1907	Shrews- bury, 1884
Ordinary . . .	Feet 6,610	Feet 6,870	Feet 7,050	Feet 6,980	Feet 7,590	Feet 7,575	Feet 6,490	Feet 7,860	Feet 9,315
Machinery . .	3,405	3,663	3,125	3,065	2,555	2,420	2,585	2,195	2,035
Special (Seeds, Models, &c.) . . .	3,473	3,609	3,363	3,907	3,430	2,381	2,960	3,251	1,564
Total (Exclusive of open ground space) . . .	13,488	14,224	13,538	13,992	13,565	12,886	12,035	13,066	12,904
No. of Stands	440	513	442	457	454	437	389	417	367

(1) Admissions by Payment at Shrewsbury, 1914.

Day of Show	11 a.m.	1 p.m.	3 p.m.	5 p.m.	Day's total
Tuesday (5a.) . . .	888	1,665	2,052	2,155	2,166
Wednesday (2a. 6d.) . . .	4,110	9,887	12,095	12,501	12,566
Thursday (2a. 6d.) . . .	6,225	15,578	18,599	19,243	19,317
Friday (1a.) . . .	10,027	23,534	36,872	38,626	39,397
Saturday (1a.) . . .	4,094	9,557	12,751	14,151	14,357
Total Admissions . . .					87,808

(2) Total daily admissions at the 1914 Show, compared with the previous six Shows and the Shrewsbury Show of 1884.

Prices of Admission	Shrwsbury, 1914	Bris- tol, 1913	Don- caster, 1912	Nor- wich, 1911	Liver- pool, 1910	Glos- ter, 1909	New- castle, 1908	Shrws- bury, 1884
Implement day (2a. 6d.) . . .	—	—	—	—	—	—	—	194
Judging day (5s.) . . .	2,166	1,769	1,371	878	2,492	1,492	2,397	2,183
First half-crown day . . .	12,566	21,632	10,780	7,140	19,646	20,019	52,142	11,211
Second half-crown day . . .	19,317	31,155	18,914	20,442	30,193	15,452	28,880	18,474
First shilling day . . .	39,397	74,702	39,254	75,266	44,327	30,261	98,489	49,374
Second shilling day . . .	14,357	45,890	19,814	17,739	41,154	21,152	51,959	17,690
Totals . . .	87,808	179,148	90,130	121,465	137,812	88,306	213,867	94,126

¹ After 5 p.m. the admission was one shilling.

[Continued from page 151.]

always a number of black sheep, a greater proportion probably than in any other breed, although it has never been the custom to keep black rams. From time immemorial the wool of the black sheep has been kept separately, for the purpose of making the brown or "Cochddu" tweed, which was the common wear amongst the old Welsh farmers, and was also used for making worsted for the brown stockings that were worn with it. About forty years ago the late W. E. Oakeley, of Plas, Tanybwlic, started a flock of black sheep, and since then many other flocks have come into existence. The black colour appears to be more prepotent than the white, for it is found that in crossing black and white, either way, at least 75 per cent. of the lambs are black. From this it would almost appear that the original colour of the sheep was black or brown, and it is a remarkable fact that the white mountain lambs generally have a patch of brown wool at the back of the head, which disappears with age. This is probably a reversion to the original type. With the exception of their colour there is no difference between the black and the white sheep, the points being the same, and the one is quite as hardy as the other.

These black sheep are now becoming very fashionable as park sheep as they are very ornamental and have a great advantage over white in districts that are at all affected by smoke, and there is something very attractive in their wild appearance and bright and prominent brown eyes.

The tweed made from the undyed wool has a most pleasing and distinctive appearance.

The third Shrewsbury Show may truly be said to have been a "country meeting," and the Local Committee are to be congratulated upon the success of their efforts to provide a satisfactory Showground.

The Mayor was indefatigable in his efforts to carry out the necessary arrangements, and was ably assisted, firstly, by Mr. H. C. Clarke, and secondly, by Mr. Prideaux, as Town Clerk.

The Local Committee were fortunate in having as their Chairman Sir J. B. Bowen-Jones, Bart., and Members who, like himself, had had the experience of the Society's requirements on the occasion of the previous visit to Shrewsbury in 1884.

As one of the Honorary Secretaries, Mr. Alfred Mansell rendered invaluable services to the Society in respect of the several arrangements connected with the Showyard, and was ably assisted by the Secretary to the Local Committee, Mr. Edward Clothier.

THOS. McROW.

16 Bedford Square,
London. W.C.

MISCELLANEOUS IMPLEMENTS EXHIBITED AT SHREWSBURY, 1914.

THE number of entries for the Society's Silver Medal granted for new implements was fifty-two, but, as was the case last year, it cannot be said that there was any epoch-making entry. Taking the two exhibits that were awarded a medal in their catalogue order, the first is No. 261, Stand 68, John S. Millar & Son, Annan, *Cream Separator*.

This is a cream separator and small petrol motor combined, the motive power being an air-cooled bicycle engine, mounted upon the same stand as the separator; the fly-wheel has vanes attached which drive the air against a curved part of the base, when it is deflected upwards against the gills of the cylinder for cooling purposes. The belt driving the separator passes round the fly-wheel, under a jockey-pulley which is pressed against the belt by a spring when the separator is running, but held up by a catch, so relieving the belt of tension when the separator is not in use.

The motor is started by taking a few turns of a rope round the shaft and giving it a smart pull. When the engine is fairly running the catch of the jockey-pulley is released, and the belt gradually takes up the drive, acting as a friction clutch. There is a neat speed-regulator in the form of a revolution counter to regulate the separation. On trial in the working dairy the separation proved satisfactory, the capacity being at the rate of 70 gals. per hour. There is a small pulley attached to the fly-wheel which, by means of a counter-shaft for reducing the number of revolutions, could be used for driving a churn or butter drier.

This would appear to be a useful implement for a moderate sized farm where the proprietor does not wish to install more elaborate machinery. There is no reason to think that it could not be run by any woman who is capable of looking after a bicycle. The price is 30*l*.

The second implement to which a medal was awarded was No. 3929, Stand 295, Harrison McGregor & Co., Leigh, Lancs. This is a *Chaff Cutter*, complete with self-feeding top and bottom webs, fly-wheel cover, feeding-table, chaff sifter, dust extractor, elevator, chaff-bagger and dust receptacle. Price 66*l*. 10*s*. It cannot be said that any of these individual items are absolutely new, but they have been combined together in a thoroughly satisfactory manner, the whole forming a compact plant in a small space, and which can be erected upon one floor and attended to without going upstairs. A very good feature is the extraction of the dust directly the chaff has been cut.

Among the small exhibits entered for competition may be mentioned the *Wire Strainer* of Messrs. Trehwella Bros. Proprietary, Ltd., Alma Street, Soho, Smethwick, Birmingham, which enables the wires of a fence to be easily tightened at any point in their length. The action is somewhat similar to that of the small jacks supplied to American cars, and it is moderately priced at 15s.

The next item is a *Potato Planter*, Stand 104, F. W. Moellenkamp & Co., Farringdon Street, E.C. This machine is similar to the one exhibited last year, with the addition of a plough for the furrows, but in the light of the new system of sprouting potatoes in boxes before planting them, it is questionable whether this machine would be of much use.

On this stand is exhibited a *Motor Plough*, made by Stock Motor Plough Co., Berlin. Visitors to the Show, who saw this exhibit, and noticed its enormous wheels and great power, will be interested to know that, in all probability, this is the identical type, if not the actual machine that has been used by the Germans for digging their trenches and burying their dead.

On Stand 130, J. L. Lawson, 119A, Ivy Road, Cricklewood, London, N.W., representing Maskim-och-Brobyggnado Aktiebolaget, Helsingfors, Finland, was exhibited a series of *Separators*, ranging from one with a capacity of 440 gals. per hour to one with a capacity of 29 gals. per hour. There is nothing particularly new, but the design is well thought out, lubrication (which is always an important matter) satisfactory, and workmanship good. The churn, with a capacity of $2\frac{1}{2}$ gals., at the price of 17. 15s., seems good value for anyone who favours the type of open topped churn with a revolving bowl and scoop inside to dash the cream across. The bowl is a nicely spun article, free from all corners and consequently easily cleaned.

The *Cultivator* exhibited on Stand 161, Standen & Co., St. Ives, Hunts, was worthy of notice as being a thoroughly practical and well-designed implement, though the price, 227., might militate against a large sale.

The *Tedder* on the same stand is also well designed, though perhaps somewhat heavy.

There were several *Milk Cleansers* exhibited, one of which was on the stand of the Wolseley Sheep Shearing Machine Co., Birmingham, Stand 194. The action in all of them seems to be simply the same as that of a cream separator, only, in this case, the milk is the lighter body, and the impurities the heavier body; but it would not appear that the implement, No. 2024, if it could only pass 35 gals. per hour as a cream separator or a milk cleanser, would be worth the price demanded.

The *Milk Strainer* exhibited by W. H. Smith & Co., Whitchurch, Salop, Stand 201, seems a very practical and useful article. The straining surface, instead of being flat and directly under the stream of milk being poured into the can, has a curved surface, consequently the stream of milk clears the impurities off the surface of the strainer and so avoids any clogging of the holes.

On the stand of the Dairy Supply Co., Museum Street, London, W.C., was exhibited the *Milk Steriliser* by means of the ultra violet rays of light. Unfortunately, it was impossible to try this implement, as the dynamo used for producing the electricity had gone astray on the railway. Briefly, the action may be described as follows:—The milk in a thin stream passes over a corrugated surface similar to that of the ordinary milk-cooler; in its passage it is exposed to the action of rays which are beyond the violet rays in the spectrum of light. These have been found to kill bacteria of all kinds.

Granted that it is possible to kill in milk all bacteria, the question arises whether it is advisable to do so, because there are certain bacteria which have useful functions, and if, in a given quantity of milk, all the bacteria are killed, it would appear to be necessary to re-introduce the benevolent ones. Before this apparatus comes into general use this point should be carefully considered.

Philip Pierce & Co., of Wexford, exhibited on Stand 250 a *Spacing Machine* for turnip and mangold seeds which is very worthy of mention. Instead of the seeds being delivered in a continuous stream down the shoot the feed is considerably slower and interrupted at easily adjustable intervals, so that a group of seeds only is delivered at a time. It may be said that the machine, which costs 3*l.* 10*s.*, seems practical and good and well worthy of trial.

Messrs. Drake & Fletcher, Maidstone, Stand 291, exhibited a *Grading Machine* for sorting all manner of fruit. There is a travelling rubber band with holes of various sizes, through which the fruit being sorted can pass into separate compartments. Great care has been exercised in the design: for example, where the fruit is liable to injury by coming in contact with a corner, it is protected by forming the corner of rubber or a soft brush. The capacity of the machine is from 30 to 100 bushels per hour and the price 32*l.*

The *Topping and Tailing Machine*, exhibited by Teasdale Bros., Ltd., of Darlington, Stand 305, deserves favourable mention, but it is evident that this machine could not be tried until the autumn.

The Darby-Maskell Motor-Plough Syndicate exhibited the same machine as last year, which was so fully described in

the 1913 Report. It was again tried on a sewage farm near Shrewsbury, and its performance did not seem to be much better than that in the previous trial. No alteration seems to have been made in the general design. The price, 85*sd.*, would seem to place it beyond the reach of the ordinary agriculturist.

W. & T. Avery, of Birmingham, showed on Stand 352 an *Automatic Fuel Oil Weigher*. Although entered as a new implement there is no material departure in design from that of their well-known automatic weighers for grain, &c. There is no doubt that such a machine will be appreciated by the vendors and users of heavy oil engines. The workmanship and design are in every way up to the standard of this firm.

On Stand 354, Audiffren Singrun Refrigerating Machines, Ltd., Caxton House, Westminster, S.W., was shown a very ingenious *Refrigerating Machine*, the invention, it is understood, of a French priest. In most refrigerating machines the

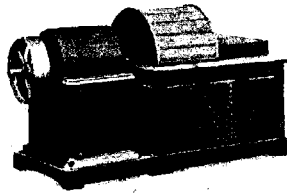


FIG. 1. - Audiffren Singrun Refrigerating Machine.

trouble has been to keep the ammonia or other liquid used in the process from leaking past the gland of the compressor pump: here this is obviated by enclosing the whole of the machinery in a globe, which revolves in the cooling water, the pump being suspended inside, and only prevented from turning with the globe by a weight attached to its base.

The Ivel Agricultural Motors, Biggleswade, exhibited on Stand 355 a *Motor-Hoe*. The hoes are worked backwards and forwards, imitating hand action, while the wheels move the machine forward. It was stated that a similar hoe had been in use amongst the vines in France.

The *Agricultural Motor* on Stand 359, Saunderson & Mills, Bedford, appears to be a thoroughly practical and well-thought-out machine, but of limited capacity, due to its small power: there is nothing particularly new in the details.

To the *Wyles Motor Plough*, Stand 362, Wyles Motor Plough Co., 10 Park Road, Leeds, must be applied the remarks, made in last year's Report, that it is useless to limit the capacity of a

machine, however well adapted to its work, by compelling the attendant to walk.

As regards the general character of the exhibits of implements, it may be said that the standard is as high as that of recent years, and therefore it is very difficult to make marked improvement in any direction.

The use of petrol or paraffin motors for road rollers seems to be increasing, the stand of Messrs. Barford & Perkins, Peterborough, having several good examples. It is not yet, however, quite clear whether the internal combustion engine is more suitable than a steam engine for this purpose. No doubt when tar macadam roads have entirely replaced water macadam roads a great saving will be effected in the cartage of water; meanwhile, if it is necessary to cart water for the road it may just as well be carted for the engine, and a steam engine has certainly a greater emergency reserve than a petrol motor.

The *Complete Roller Flour Milling Plant*, exhibited by Thomas Robinson & Son, of Rochdale, was well worthy of a visit. In it the wheat could be followed in its gradual reduction from the grain to the finished flour, and the perfection of the machinery for extracting all the goodness out of the wheat is truly admirable.

In conclusion, it is to be regretted that, owing to illness, Mr. Broughton Dugdale was not able to act as a Judge. The best thanks are due to Mr. F. S. W. Cornwallis and to the Hon. J. E. Cross for their assistance, and to Mr. F. S. Courtney, M.Inst. C.E., for his technical advice.

HARRY W. BUDDICOM.

Penbedw, Nannerch,
Mold.

MILK AND BUTTER TESTS AT THE SHREWSBURY SHOW, 1914.

I.—MILK-YIELD TESTS.

ALTHOUGH the number of entries for these classes created a record, the absentees were so numerous that the cattle actually present did not reach the total of 112, that being the number of cattle at Norwich, which Show tops the list of cows tested at the Royal Agricultural Society's Shows.

The conditions under which the competitions were held were the same as in previous years, but the number of points necessary to obtain a prize or commendation was slightly increased (see page 163):—

TABLE I.—MILK-YIELD CLASSES AT SHREWSBURY, 1914.

No. in Catalogue	Exhibitor	Name of cow	Date of birth	Date of last calf	No. of days in milk	Total milk yielded in 4 hours	Fat per cent.	Milk per lb.	Points	Awards		
						Lib. oz.			Lacks from	Total		
Class 120		Shorthorns		1914								
1089	J. Darque	Border Lady 2nd	Feb. 12, 1905	June 22	10	68	5	3.26	8.57	12.12	N11 31.20	1st Prize.
1090	W. W. Hobbs & Sons	Border Lady 1st	Feb. 12, 1905	June 22	82	68	6	3.36	8.57	12.12	N11 31.20	2nd Prize.
1091	R. Long	Kinky Roan Rose	Dec. 29, 1905	May 31	40	49	10	2.75	49.52	11.90	N11 31.20	3rd Prize.
1092	J. E. H. Patten	Solo 40th	Apr. 6, 1907	May 14	18	54	14	3.15	54.87	12.80	N11 31.20	4th Prize.
1093	J. E. H. Patten	Berlington Duchess 39th	Nov. 30, 1906	June 14	18	54	14	3.15	54.87	12.80	N11 31.20	5th Prize.
1094	Lord Rothchild	Berlington Duchess 4th	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	6th Prize.
1095	Lord Rothchild	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	7th Prize.
1096	S. Sanday	Duke's Daisy	Mar. 18, 1906	June 4	26	52	14	2.40	52.97	13.60	N11 31.20	8th Prize.
1097	R. Silecock & Sons	Drum 4th	Feb. 3, 1906	June 17	15	48	4	3.47	48.26	13.88	N11 31.20	9th Prize.
1098	J. B. Stevens	Belie 19th	Oct. 13, 1906	May 31	27	45	14	2.77	43.97	13.58	N11 31.20	10th Prize.
1099	J. B. Stevens	Ophourne Snowdrop 3rd	Feb. 15, 1907	June 9	33	53	10	3.45	53.62	13.80	N11 31.20	11th Prize.
1100	Dodford Florence	Belie 19th	Mar. 25, 1907	May 6	37	51	6	3.05	51.97	12.20	N11 31.20	12th Prize.
1101	W. W. Hobbs & Sons	Belie 19th	Mar. 25, 1907	May 6	37	51	6	3.05	51.97	12.20	N11 31.20	13th Prize.
1102	W. W. Hobbs & Sons	Duchess of Granford 3rd	Oct. 29, 1908	Apr. 25	68	49	6	3.05	49.02	12.20	N11 31.20	14th Prize.
1103	W. W. Hobbs & Sons	Thordale Belle 30th	June 8, 1908	May 13	14	44	49	3.00	49.02	12.20	N11 31.20	15th Prize.
1104	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	16th Prize.
1105	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	17th Prize.
1106	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	18th Prize.
1107	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	19th Prize.
1108	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	20th Prize.
1109	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	21st Prize.
1110	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	22nd Prize.
1111	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	23rd Prize.
1112	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	24th Prize.
1113	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	25th Prize.
1114	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	26th Prize.
1115	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	27th Prize.
1116	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	28th Prize.
1117	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	29th Prize.
1118	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	30th Prize.
1119	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	31st Prize.
1120	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	32nd Prize.
1121	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	33rd Prize.
1122	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	34th Prize.
1123	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	35th Prize.
1124	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	36th Prize.
1125	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	37th Prize.
1126	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	38th Prize.
1127	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	39th Prize.
1128	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	40th Prize.
1129	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	41st Prize.
1130	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	42nd Prize.
1131	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	43rd Prize.
1132	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	44th Prize.
1133	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	45th Prize.
1134	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	46th Prize.
1135	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	47th Prize.
1136	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	48th Prize.
1137	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	49th Prize.
1138	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	50th Prize.
1139	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	51st Prize.
1140	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	52nd Prize.
1141	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	53rd Prize.
1142	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	54th Prize.
1143	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	55th Prize.
1144	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	56th Prize.
1145	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	57th Prize.
1146	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	58th Prize.
1147	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	59th Prize.
1148	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	60th Prize.
1149	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	61st Prize.
1150	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	62nd Prize.
1151	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	63rd Prize.
1152	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	64th Prize.
1153	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	65th Prize.
1154	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	66th Prize.
1155	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	67th Prize.
1156	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	68th Prize.
1157	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	69th Prize.
1158	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	70th Prize.
1159	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	71st Prize.
1160	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	72nd Prize.
1161	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	73rd Prize.
1162	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	74th Prize.
1163	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	75th Prize.
1164	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	76th Prize.
1165	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	77th Prize.
1166	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	78th Prize.
1167	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	79th Prize.
1168	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	80th Prize.
1169	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	81st Prize.
1170	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	82nd Prize.
1171	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	83rd Prize.
1172	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	84th Prize.
1173	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	85th Prize.
1174	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	86th Prize.
1175	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.08	N11 31.20	87th Prize.
1176	W. W. Hobbs & Sons	Widley Bowness	Mar. 18, 1906	May 27	36	49	10	2.52	49.02	10.		

TABLE I.—MILK-YIELD CLASSES AT SHREWSBURY, 1914—continued.

No. in Catalogue	Exhibitor	Name of cow	Date of birth	Date of last calf	No. of milk 24 hours	Total yield in milk 24 hours	Fat per cent. age	Milk	Points	Awards
Jerseys—continued.										
Class 216	Mrs. Evelyn	Comodon	Jan. 14, 1905	Feb. 16, 1914	136	41.12	4.30	41.75	16.80	68.15 H.C.
1851	Mrs. Evelyn	Sweet Daisy	Oct. 26, 1907	Jan. 16, 1914	107	30.4	4.35	30.25	12.40	12.00 3rd Prize.
1852	Mrs. Jackson	Agnes Maria	Mar. 4, 1908	Apr. 10, 1914	83	36.4	4.38	36.60	17.30	4.30 H.C.
1853	Mrs. E. E. E.	Yeovil Lively	Mar. 4, 1908	Apr. 10, 1914	83	36.4	4.38	36.60	17.30	4.30 H.C.
1868	G. Murray Smith	Rose's 1st 2nd	Dec. 28, 1908	May 20, 1914	42	40	4.45	40.50	21.80	30 70.68 H.C.
1869	G. Murray Smith	Rose's 1st 2nd	Dec. 28, 1908	May 20, 1914	42	40	4.45	40.50	21.80	30 70.68 H.C.
1871	J. H. Smith Barry	Heywood Bluebell	Mar. 16, 1906	May 20, 1914	43	48	4.57	48.50	21.88	30 74.93 1st Prize.
1872	J. H. Smith Barry	Marionette	Oct. 3, 1904	May 17, 1914	46	56	4.52	56.25	18.08	40 H.C.
1873	J. H. Smith Barry	Flavia	Dec. 30, 1907	May 17, 1914	107	44	4.78	44.25	13.42	6.70 H.C.
1875	Lady Wetherill	Carlband	Dec. 3, 1907	June 3, 1914	20	34	4.60	34.50	14.40	48.01 H.C.
1891	Lady Wetherill	Flavia	Jan. 5, 1911	June 3, 1914	107	44	4.78	44.25	13.42	6.70 H.C.
Class 224	Mrs. Bainbridge	Catnon's Fairy	Feb. 26, 1911	Apr. 14, 1914	70	30	4.32	30.50	15.08	3.90 50.07
1869	Mrs. Bainbridge	Countess of the Mouette	Apr. 17, 1905	Mar. 30, 1914	94	30	4.32	30.75	13.92	5.40 50.07
1870	Mrs. E. A. Hemmery	Billy Art of Ewell 5th	Oct. 9, 1905	May 1, 1914	62	51	4.12	51.75	11.12	2.20 1st Prize.
1871	Mrs. E. A. Hemmery	Rebecca	Apr. 15, 1906	May 1, 1914	18	32	4.50	32.00	15.00	7.60 1st Below Standard.
1872	Mrs. E. A. Hemmery	Goldphim Phyllis 3rd	Apr. 18, 1906	Apr. 16, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1873	Mrs. E. A. Hemmery	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1874	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1875	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1876	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1877	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1878	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1879	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1880	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1881	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1882	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1883	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1884	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1885	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1886	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1887	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1888	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1889	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1890	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1891	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1892	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1893	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1894	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1895	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1896	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1897	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1898	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1899	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1900	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1901	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1902	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1903	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1904	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1905	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1906	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1907	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1908	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1909	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1910	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1911	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1912	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1913	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1914	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1915	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1916	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1917	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1918	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1919	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1920	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1921	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1922	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1923	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1924	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1925	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1926	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1927	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1928	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1929	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1930	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1931	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1932	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1933	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1934	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1935	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1936	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1937	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1938	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1939	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1940	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1941	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1942	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1943	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1944	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1945	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1946	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1947	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1948	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1949	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1950	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1951	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3, 1906	Mar. 5, 1914	119	40	4.42	40.25	17.00	7.90 2nd Prize.
1952	Sr. F. Leonard, Br.	Wickham Fancy 2nd	Nov. 3,							

Milk and Butter Tests at the Shrewsbury Show, 1914. 163

	Cows 5 years old and over	Cows and heifers under 5 years
Shorthorn, Lincolnshire Red Shorthorn, South Devon, and British Holstein	63 points	57 points
Devon, Longhorn, Red Poll, Ayrshire, Jersey, and Guernsey	58 "	52 "
Kerry and Dexter	48 "	42 "

The cattle were milked dry on Wednesday evening, July 1, at 5.15 p.m., the milk of the next 24 hours being used for these and the Butter Test Trials. Samples of milk for analysis were taken at each milking by Dr. Voelcker.

Table I. on pp. 160-162 gives the full results of the trials and the prize winners in the various classes.

Table II. gives, as in previous reports, the average figures of all the cattle tested, which, where the numbers of each breed are not small, compare favourably with previous results, allowance being made for the great heat during the first three days of the Show.

• TABLE II.

No. of cows com- peting	Breed	Days in milk	Milk Lb. oz.	Fat per cent.	Points			Total
					Milk	Fat	Lacta- tion	
22	Shorthorn	40	49 8½	3.20	49.53	12.80	nil	62.33
8	Lincoln. Red do.	57	46 4	3.32	46.25	13.28	1.70	61.23
8	Devon	64	36 3½	3.24	36.19	12.96	2.10	51.55
7	South Devon	73	50 12½	3.27	50.78	13.08	3.30	67.16
3	Longhorn	81	42 10½	3.61	42.65	14.44	4.10	61.19
7	Red Poll	68	46 14½	3.25	46.90	13.00	2.80	62.70
4	Ayrshire	37	44 3	3.31	44.18	13.21	nil	57.42
5	Holstein	67	56 7½	2.82	56.44	11.28	2.70	70.42
18	Jersey	79	38 15½	4.38	38.97	17.52	3.90	60.39
9	Guernsey	66	39 13½	3.81	39.82	15.24	2.60	57.66
8	Kerry	65	42 4½	3.22	42.28	12.88	2.50	57.66
7	Dexter	56	33 2½	3.20	33.12	12.80	1.60	47.53

It will be noticed that the low percentage of fat in some of the Holsteins would have disqualified the whole of the class had prizes been given on average figures.

On the question of poor milk, it is my duty to point out that the number of cattle ruled out on this ground was larger than usual, the average percentage of fat in the two milkings not coming up to the standard of 3 per cent. in the case of 22 animals out of a total of 108, while at Norwich only 13 out of 112 failed, and 12 out of 94 at Bristol. The particulars will be found on page 167.

TABLE III.—RESULTS OF BUTTER TESTS AT SHREWSBURY, 1914.
CLASS 235 A.—COWS IN MILK EXCEEDING 900 LB. LIVE WEIGHT.

No. in Catalogue	Exhibitor	Name of Cow	Breed	Live weight	Date of birth	Date of last calf	No. of days in milk	Milk yield pails 14 days	Butter yield lb. 14 days	Ratio lb. butter to lb. milk	Colour and quality of butter	Quality	No. of points for butter	No. of points for period of lactation	Total No. of points	Awards	GRADING TABLE					
																	Time	Temperature of curd, F.	Finished	Dairy (minutes)	Cream and churn	Buttermilk
1091	R. W. Hobbs & Sons	Loose End	Shorthorn	1405	Sept. 17, '07	April 28	65	38.14	1.124	39.14	Fair	Good	31.25	2.50	33.75	H. C.	9.31	10.29	36	53	54	
1092	R. W. Hobbs & Sons	Solihull	Shorthorn	1406	Dec. 20, '05	May 21	37	56	1.10	35.92	Poor	Fair	30.00	NH	30.00	...	9.47	10.17	30	56	53	
1093	R. Jones	King's	Shorthorn	1299	April 6, '07	May 14	47	46	1.04	36.50	Fair	Fair	31.75	390	33.65	...	9.49	11.15	33	55	53	
1094	H. D. Mason	Ratton Melody	Shorthorn	1294	Feb. 24, '06	June 14	45	54	1.17	33.17	Good	Good	32.00	NH	32.00	...	9.50	11.10	35	55	53	
1097	J. K. Foster	Burgess Dale	Shorthorn	1400	Feb. 3, '08	June 17	15	45	1.124	37.92	Good	Good	32.25	NH	32.25	...	10.0	10.29	36	56	53	
1100	F. H. Thornton	Dorland Providence	Shorthorn	1330	Mar. 25, '07	May 6	57	51	1.104	36.72	Good	Fair	32.75	170	28.45	...	10.29	11.16	37	57	53	
1103	F. H. Thornton	Barnington	Shorthorn	1306	Sept. 25, '07	April 25	53	51	1.11	35.44	Good	Good	32.25	280	28.05	...	10.3	11.1	36	57	53	
1114	Capt. A. S. Wills	Duness of Cran	Shorthorn	1225	Oct. 29, '06	April 25	61	49	1.104	39.68	Good	Good	32.75	280	29.55	...	10.29	11.14	43	57	57	
1115	The Earl of Derby	Nelly Lee and	Shorthorn	1302	Mar. 20, '10	June 11	21	26	1.04	18.87	Fair	Good	22.75	NH	22.75	H. C.	10.43	10.54	41	57	54	
1119	H. H. Ostrum	Dorland Rose	Shorthorn	1246	Jan. 10, '10	June 15	17	15	1.04	5	V. Good	V. Good	32.00	NH	31.00	...	11.13	11.13	45	57	54	
1124	J. Evans	Brown Prince 7th	Lochin Red	1247	Mar. 1897	June 1	21	25	1.1	57.85	Good	Fair	32.00	NH	32.00	...	11.13	11.13	45	57	54	
1125	J. Evans	Brown Prince 8th	Lochin Red	1248	Mar. 1897	June 1	21	25	1.1	57.85	Good	Good	32.25	NH	32.25	...	11.13	11.13	45	57	54	
1202	J. Evans	Brown Diamond	Lochin Red	1404	Feb. 8, '06	May 18	43	62	1.124	27.41	Good	Good	32.25	NH	32.25	2nd Prize	11.42	12.17	45	57	56	
1204	J. J. Evans	Brown Sweet	Lochin Red	1385	Mar. 1, '08	June 11	21	21	1.04	25.68	Good	Good	27.00	NH	27.00	...	11.42	12.17	45	57	56	
1205	H. Neesham	Garwick Cherry	Lochin Red	1216	April 8, '06	March 1	23	49	1.04	25.68	Good	Good	30.50	530	46.90	Disqualified	11.42	12.17	45	57	56	
1206	H. Neesham	Garwick Dairy	Lochin Red	1279	April 1, '06	Jan. 12	71	54	1.04	21.61	Good	V. Good	40.75	1209	52.75	Disqualified	12.12	12.50	45	57	53	
1208	C. E. Sower	Brookside 94 B	Lochin Red	1286	Mar. 1, '06	March 8	115	44	1.04	20.23	Fair	Good	36.25	760	33.85	H. C.	12.8	13.6	47	57	56	
1209	J. H. Chick	Wentford	Lochin Red	1404	Dec. 5, '06	April 25	67	51	1.1	27.26	Fair	Fair	18.25	270	20.05	H. C.	12.8	13.6	47	57	56	

* The "Butter Ratio" represents the number of lb. of milk required to make 1 lb. of butter.

For the of milk were required as equal to the required milk.

No. in catalogue	Exhibitor	Name of cow	Breed	Live weight	Date of birth	Date of last calving	No. of days in milk	Milk in 24 hours	Butter yield	Ratio, viz. lb. milk to lb. butter	Colour	Quality	No. of points for No. of points for period of lactation	Total No. of points	Awards	Prize	Printed	Published	Reprint	Illustrations	Material	Value	Exhibitor's name	
428	J. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
429	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
430	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
431	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
432	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
433	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
434	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
435	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
436	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
437	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
438	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
439	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
440	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
441	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
442	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
443	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
444	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
445	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
446	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885	March 27, 1894	46	50	22	22.64	Fair	Good	10.75	6.0	37.65	H.C.	...	2	2	2	2	2	2	2
447	W. H. Chick	W. Alfred Tolly	Devon	1b.	May 1, 1885																			

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TABLE III.—RESULTS OF BUTTER TESTS AT SHREWSBURY, 1914—continued.
CLASS 233 B.—COWS IN-MILK NOT EXCEEDING 900 LB. LIVE WEIGHT.

No. in Catalogue	Exhibitor	Name of cow	Breed	Live weight	Date of birth	Date of last calving	No. of days in milk	Milk lb.	Butter yield lb.	Ratio, lb. milk to lb. butter	Colour and quality of butter		No. of points for butter	No. of points for butter	Total No. of points	Awards	CHURNING TABLE			
											Colour	Quality					Brass	Finished	Butter (butter)	Time, min., & sec.
1837	Mrs. Bradish	Ruxia	Jersey	Lib. 530	Oct. 29, '02	Feb. 18, 1914	134	28 0	1 10 1/2	16 90	Good	V. Good	20 50	9 40	35 90	Cert. of Merit	9 04	11 18	52	55
1838	Mrs. Adams	Adeline	Jersey	866	Aug. 13, '08	May 21, 1914	212	57 4	1 54	20 45	Excellent	Good	27 50	10 20	38 45	...	9 00	10 30	45	56
1840	Adeline H. H.	Lady Sylvia	Jersey	840	Sept. 3, '06	June 11, 1914	211	56 4	1 51	21 81	Excellent	V. Good	19 25	10 25	38 50	...	10 00	10 30	38	57
1841	Mrs. Blundell	Beckington Helen	Jersey	770	July 31, '10	June 10, 1914	22	34 0	1 43	21 46	Fair	Good	20 25	10 11	20 71	...	10 00	11 20	41	53
1842	Mrs. Eversley	Essex Fortune	Jersey	782	May 8, '08	Apr. 9, 1914	85	30 12	1 14	21 38	Good	Good	27 50	10 41	27 53	...	10 41	27 53	57	53
1843	Mrs. Eversley	Sweet Daisy	Jersey	878	Oct. 26, '07	Jan. 16, 1914	107	39 4	1 41	16 41	Good	V. Good	39 25	10 00	30 25	1st Prize & Gold Medal	10 41	10 45	48	57
1844	W. N. Jackson	Agnes Maria	Jersey	725	May 1, '08	Apr. 13, 1914	80	30 4	1 41	22 50	Good	Good	20 50	10 00	24 50	...	10 00	12 8	18	57
1845	G. Murray Smith	Rozes Pet 24th	Jersey	812	Apr. 3, '06	May 21, 1914	43	60 8	2 04	19 58	Good	V. Good	32 50	10 30	33 10	...	11 23	13 49	56	57
1846	J. H. Smith-Barry	Marionette	Jersey	801	Oct. 3, '04	May 17, 1914	46	56 4	2 13 1/2	19 07	Excellent	Excellent	45 75	10 46	46 35	2nd Prize & Bronze Medal	12 27	1 9	42	57
1847	J. H. Smith-Barry	Musette	Jersey	874	July 20, '07	Mar. 17, 1914	44	44 4	2 23	20 32	Excellent	Excellent	34 50	9 70	41 20	...	12 13	12 52	59	57
1848	G. Murray Smith	Guava	Jersey	808	Jan. 5, '11	June 3, 1914	29	34 8	1 41	24 80	V. Good	V. Good	32 25	10 11	22 25	...	2 40	3 15	50	58
1849	Lady Wether	Cottow's Fairy	Jersey	735	Feb. 25, '11	Apr. 14, 1914	79	59 8	1 41	22 51	Fair	Fair	30 75	9 50	34 05	...	2 40	3 35	45	59
2068	E. P. Peyton	Pulsinella	Deater	905	Mar. 29, '10	May 18, 1914	48	51 8	1 43	22 58	Fair	Good	39 50	9 50	34 05	...	3 21	3 35	47	59

* The "Butter Ratio" represents the number of lbs. of milk required to make 1 lb. of butter. For lbs. of milk see column on opposite to this important column.

7	Shorthorns	out of 22 sampled
2	Lincolnshire Red Shorthorns	" 8 "
1	South Devon	" 7 "
1	Loughorn	" 3 "
2	Red Polls	" 7 "
3	Holsteins	" 5 "
1	Guernsey	" 9 "
3	Kerries	" 8 "
2	Dexters	" 7 "

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Although the hot weather may have had something to do with this, I feel that in many cases the forcing and so injudicious feeding of the cattle is the true cause.

Having the control of all the milk in the yard enables experiments to be made with the various breeds' milks, and this year in particular, the very poor quality of certain milk and the pale butters obtained from them, pointed in no uncertain way to the fact that the cattle were being fed on foods which increased the quantity to the detriment of the quality of the milk.

II.—BUTTER TESTS (CLASS 235, A & B).

As in the Milk-yield Classes the number of entries for these tests was large, but absentees and withdrawals reduced the cattle competing from 79 to 56, which latter figure is two less than the number of cows which were tested in 1913 at Bristol.

The regulations and points were the same as in previous years, 43 animals competing in Class A, for heavy weights, representing the various dairy breeds, while Class B consisted of 12 Jerseys and 1 Dexter.

Table III on pp. 164-6 gives the full particulars of the trials, with the prizes, commendations and certificates of merit awarded.

Table IV gives the averages of the various breeds tested.

TABLE IV.—*Averages of Cattle Tested.*

No. of cows competing	Breed	Live weight	Days in milk	Milk	Butter	Ratio	Points		
							Butter	Lactation	Total
		Lb.		Lb. oz.	Lb. oz.				
11	Shorthorn	1385	41 50 4 $\frac{1}{2}$	1 10 $\frac{1}{2}$	30 64	26 25	10	26 35	
6	Lincoln Red do.	1420	49 53 14 $\frac{1}{2}$	1 13 $\frac{1}{2}$	29 07	29 04	90	29 94	
3	Devon	1409	70 36 15 $\frac{1}{2}$	1 7 $\frac{1}{2}$	25 16	23 50	3 00	26 50	
7	South Devon	1557	73 50 12 $\frac{1}{2}$	1 11 $\frac{1}{2}$	29 43	27 69	3 30	30 89	
2	Loughorn	1414	66 49 4	1 7 $\frac{1}{2}$	33 53	23 25	2 60	25 85	
3	Red Poll	1353	73 36 6	0 15 $\frac{1}{2}$	36 56	15 92	3 30	19 22	
18	Jersey	877	78 38 7 $\frac{1}{2}$	1 13 $\frac{3}{4}$	21 07	29 26	3 80	33 06	
3	Guernsey	1064	98 40 14 $\frac{1}{2}$	1 8 $\frac{1}{2}$	25 01	24 50	5 80	30 30	
1	Dexter	665	45 31 8	1 4 $\frac{1}{2}$	24 58	20 50	50	21 00	

I have to report that in the case of two animals the General Regulation 15 was not observed by the exhibitor. The date of the last calving of two very good cows were incorrectly given on the entry form, and in this way extra points for lactation were obtained.

The case was reported to the Council, and the prizes in all the classes in which the animals were entered were withheld pending a complete enquiry into the circumstances. This subsequently took place, and both animals have been disqualified, the prizes being awarded to those next in order of merit.

To guard against a repetition of such a case, as also to ensure that cows entered for the Milk Yield and Butter Test prizes should be regular breeders, the points to be given for the period of lactation have been carefully considered, and the alterations have been incorporated in the conditions of entry relating to the Milk Yield and Butter Test classes in the Prize Schedule.

III.—EXPERIMENT IN CHURNING.

An experiment similar to that carried out in 1913 in the Showyard Dairy at Bristol, under the above heading, was again undertaken at Shrewsbury, with a view of confirming or otherwise the result of that experiment. The milk from six breeds of cattle was taken, the sampling of the various lots and the subsequent treatment of the cream being carried out with the greatest care.

Twenty pounds eight ounces of milk (the equivalent of 2 gallons) were taken in each case, the lots being treated as follows :—

Nos. 1, 2, and 3 were separated, No. 4 being scalded.

No. 1 cream was ripened with a starter, and churned after being kept twenty-four hours.

No. 2 cream, being allowed to ripen naturally, was kept for forty-eight hours, and then churned.

No. 3 cream was churned sweet within three hours after separation.

No. 4 was scalded, the scalded cream being churned about forty-eight hours after the milk was set.

The results of the experiment are given in the following table, from which it will be seen that the previous experiment is confirmed :—

TABLE V.

Breed	Milk	Butter			
		Ripened with starter	Ripened naturally	Scalded - cream?	Sweet cream
	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.
Shorthorn	20 8	0 10½	0 10½	0 8	0 5½
Holstein	20 8	0 12½	0 12½	0 10	0 7½
Deron	20 8	0 13½	0 13½	0 10½	0 9½
Jersey	20 8	1 3½	1 1	0 14½	0 12½
Guernsey	20 8	0 14	0 14½	0 12½	0 8½
Kerry	20 8	0 14½	0 14½	0 10	0 9½

IV.—CAERPHILLY CHEESE.

An extended experiment on the making of these cheeses on the same lines as was done at Bristol was very successfully carried out at Shrewsbury, the milk used being from the Shorthorn, Holstein and Jersey breeds.

The weather was propitious, not always the case where cheeses have to be made in the Show Dairy, which is open to draught and variation in temperature, and the results appeared to be satisfactory.

At the conclusion of the Show, the cheeses were packed up and sent, as in previous years, to be looked after by Miss Noble (who carried out the experiments) until they were sufficiently ripened, when a full report on them would have been written.

For some unexplained reasons, however, the cheeses were detained by the Railway Company for nearly three weeks, and, when delivered, they were completely spoilt, so that the experiment has altogether failed.

As in previous years, I desire to record my indebtedness to my three assistant Stewards (Messrs. Alan Gibson, Lionel Dashwood, and F. Byng-Stephens), Mr. Hasted (the Dairy Clerk), Miss Kirke, the thirteen dairymaids, and the whole of the Staff.

ERNEST MATHEWS.

Little Shardsloes,
Amersham.

It is well known that in spite of years of instruction in the best dairy practice given at many centres, the standard generally is still far too low, and the opportunity afforded by the large crowds who throng the working dairy was turned to useful account at Shrewsbury, as at previous shows, by Mr. Ernest Mathews, who gave a series of lectures during the week. The educational value of this informal instruction is very considerable, for many people attend a show who would not think of

entering a dairy school, and the lectures serve to stimulate their interest, or to satisfy their curiosity as to much that must be unfamiliar to them in the careful work of the competitors in the various dairy competitions. The subjects dealt with at Shrewsbury were:—

(1) The quality of milks from the various breeds of Dairy Cattle in Great Britain. (2) The sampling and treatment of milk for experimental work. (3) Different methods of treating cream when used for butter-making. (4) Effect of good and bad churning and general Dairy work on the weight and quality of butter. (5) Surplus milk on the Farm and how to use same to best advantage:—(a) cream, (b) scalded cream, (c) cream cheeses, (d) small hard cheeses. (6) The importance of cleanliness both in milk and cream. Taints in the Dairy and elsewhere. (7) The use and abuse of colouring material in Commercial butters and milks.

ED.

AGRICULTURAL EDUCATION EXHIBITION, SHREWSBURY, 1914.

THE Education Exhibition which Sir J. B. Bowen-Jones directed at the Shrewsbury Show must be classed as one of the best the Royal Agricultural Society have ever provided at their annual summer meetings. Visitors who remember the first efforts of the Society at Park Royal to bring to the public the research work that was being carried out by the different experimental stations and colleges will recall that the one building was sufficient to house the Forestry and Educational exhibits. At Shrewsbury three tents—each of the size of the original one at Park Royal—were necessary to accommodate the exhibits, in addition to the annexes that connected the three main buildings. There was a pleasant feature about the 1914 exhibition which, it may be hoped, will be continued at future Shows. The district in which the 1914 "Royal" was held included the area in which the Harper-Adams College is situate, and to their credit it must be said that instead of setting up a separate educational tent for their own exhibit they cordially fell in with the idea that the R.A.S.E. have always had, that the college of the district in which the Show is held should take the lead in the educational section of the exhibition. The result of this hearty co-operation was a most instructive, large, and well-staged exhibit, and the expressed approval and delight of many visitors must be a source of satisfaction to the Harper-Adams authorities. The Rothamsted Experimental Station, Harpenden, had taken a bay for its exhibit. The

University College of Wales was well represented in another bay. The Meteorological Office, South Kensington, had two bays allotted to them, and the College of Agriculture and Horticulture, Holmes Chapel, Cheshire, occupied an equivalent area. The Agricultural and Horticultural Research Station, Long Ashton, Bristol, and the Agricultural Education Association also sent exhibits: and the Royal Agricultural Society's Woburn Experimental Station was also to be found showing results from the well-known Stackyard Field, and pots of growing plants from the Pot Culture Station. In the annexe were to be found two most interesting exhibits—one home-grown tobacco, and another which sought to bring fresh interest into the old occupation of flax growing, in connection with the experiments the Leeds University are carrying out on this important question.

Royal Agricultural Society of England Woburn Experimental Station.—The continued interest that is shown in this section of the Society's work is plainly noticeable in the number of members and visitors who make a point of visiting and discussing the exhibits and matters of general agriculture with Dr. Voelcker and Mr. Freear. To some it appeared an extraordinary proceeding to manure a wheat crop with such substances as sulphate and carbonate of copper, but the force and utility of the work was fully realised when it was explained that where there was a possibility of the continuous use of spraying materials containing copper salts, for the suppression of potato disease and the eradication of certain weed growths, these compounds might possibly, in the course of time, accumulate in the soil to such an extent as to become poisonous to the growth of future crops. It is satisfactory to know from these experiments, and those of previous years, that such a contingency is very remote, as it was not till amounts equivalent to 0.05 per cent. of the soil's weight of copper had been applied that marked toxic action on the wheat plant took place, whereas amounts as low as 0.02 per cent. of the soil's weight of copper became stimulative in its action. It is particularly interesting to note that pot experiments are showing the value of carbonate of lime (chalk), finely ground, as a corrective application to acid soils; and that methods have now been worked out whereby the total amount of acidity in a soil can be estimated in terms of carbonate of lime per acre. The examples shown were on soil from the well-known acid plots of Stackyard Field, the total amount of acidity having been determined and the calculated amount of finely ground chalk added. In the one case the chalk added was sufficient exactly to neutralise the acidity, and in another case an excess of chalk was given amounting to 50 per cent. beyond the point of neutrality. The crops of barley growing

in these soils were particularly full of interest. To the practical man the lesson came home that it was not necessary to apply any great excess of chalk over that required to bring the soil up to a neutral point, and he saw in the use of this method the possibility of considerable saving on his lime account.

Turves from old grass land, showing the influence that harrowing well and often exerts on the development of the grasses, to the exclusion and depletion of moss and old matted grass that was preventing the supply of air and light to the roots of the small plants, resulted in a good sound turf and a strong young clover plant, and was the object of much interest to visitors. Other exhibits were : Specimens of soil taken from a field infested with wild onion (*Allium vineale*), showing how it was possible to clear the land of this terrible pest by a simple and remunerative process ; the effects of different artificial manures on grass land ; as well as the influence on the barley plant of magnesium oxide (full accounts of this work can be found in the Society's Journal).

University College of Wales, Aberystwyth.—There were some interesting exhibits bearing on the agriculture of Wales in this bay. Relief maps showing the results that have been obtained in the investigations that have been carried out on the hills and pastures of the district, together with an interesting set of turves illustrating the effects of different treatments of pastures, were a source of great interest to a large number of visitors. The evidence of correlation between herbage and strata was striking, and the facilities here perceived for studying the flora on the different geological foundations typified the valuable knowledge that may be obtained with the minimum amount of trouble by a visit to the educational exhibition. There are not many people out of the immediate district who are aware of the large amount of land that is put out of cultivation by the workings of the Welsh lead mines. An interesting map, showing the location of a hundred lead mines and the area of affected land about them, was the subject of great interest, and it would be of value to know how far these effects are directly attributable to the metal, and how far to the particular form of combination in which the metal exists. The Woburn Pot-culture Station has shown that quite considerable amounts of lead, as sulphate or carbonate, can be present in the soil without exerting a toxic influence on the wheat plant, and should the ore the mines obtain be the sulphide of lead, the damage to vegetable life is probably due to the sulphur.

Rothamsted Experimental Station.—A good deal of work is being done at Rothamsted to find out the mechanism of the loss of nitrogen from soils and farmyard manure. Small

models of closely and loosely packed manure heaps, and diagrams showing the extent of the loss of nitrogen, were exhibited. It was shown that a high temperature in the heap is not necessarily accompanied by a loss of nitrogen. Farmers are advised to pack farmyard manure as closely as possible, and to avoid pumping liquid manure over the heap.

A new and very simple method for the determination of the amount of chalk in a soil was shown. Another method demonstrated how the requirements of a soil for quicklime or chalk might be obtained. This latter is more important, and has given very striking results, which have been confirmed by chemical and biological analyses of the soil, as well as by the growth of different crops in soils which have received various quantities of chalk or quicklime. Pots containing turf illustrated the resistance of various plants to acid conditions of the soil.

Specimens were exhibited to illustrate the various methods whereby weeds reproduce themselves, and the weeds of the hedgerow were compared with those of arable land.

The beneficial effects of partial sterilisation of, or addition of various chemical antiseptics to, sick greenhouse soils on the growth of tomatoes, chrysanthemums, and vines, was well illustrated.

There were also small stacks and ricks which demonstrated the effect of manures on the quality and quantity of produce from the permanent experimental grass and arable land at Rothamsted.

Photographs of Lawes and Gilbert, of the first laboratory (1843-1855), the testimonial laboratory erected in 1855, and of the proposed new laboratory to celebrate the centenary of Lawes and Gilbert this year, illustrated the great development which has taken place at Rothamsted during the last sixty years.

Harper-Adams Agricultural College.—This exhibit filled about one-half of the exhibition tent. The colour scheme was attractive, and the removal of the partitions of the bays added greatly to the comfort of visitors and enabled the staging to be done more tastefully. The idea of dividing the exhibit into special subjects, and placing the College expert of that subject in charge, enabled visitors interested in any particular point to get immediate information.

Biology.—A set of mounted specimens, with full descriptions of their life-history, of the chief pests to which our farm crops are subject was instructive. Bell-jars containing in the one case turnip-fleas and in the other clover-weevil on their respective crops, and mounted specimens of cereals showing insect pests in all stages of their life-history were familiar to

most, but it was surprising what information, not only from the point of view of eradication, but also from that of natural history, could be obtained in a short time with these illustrations. A useful exhibit at the present time was that dealing with the varieties of potatoes showing resistance to wart disease. A good deal of work is being carried out at the College on this important subject, and it is satisfactory to note that no fewer than fifty varieties are said to be fully resistant in any ground. There were some interesting seed-testing experiments, showing the germination power month by month. Thus clover seed, with a percentage of germination of 87 in October, rose to 96½ in March; whilst in the case of rye-grass the figures were 73 in October and 95 in March. Amongst the out-door exhibits in this section was a school garden set out for a two-course rotation; and the comparative results of planting fruit trees in grass and in cultivated ground was brought out by living examples.

General Agriculture.—A “manuring for milk” experiment was shown. The difference in the herbage in the various plots was mainly due to clover, which increases in a marked degree under the influence of potash and superphosphate. A ten years’ experiment on the manuring of meadow land should have been of interest and value to agriculturists, for it may not be too much to say, speaking of the country generally, that the grass land is not managed with the same degree of skill and attention usually devoted to arable land. The resulting herbage was shown in the attractive form of small sample stacks. Some excellent photographs were shown to illustrate the value of milk recording in dairy herds. Two cows were selected, both of them of good milking types, and apparently of an equality in this respect, but whereas the one yielded 920 gallons in a long lactation period, the other milked only for 35 weeks, and gave a total yield of 544 gallons. Exhibits of varieties of cereals, results of experiments in mangold manuring, eradication of charlock, &c., were also included in this section.

Agricultural Chemistry.—Exhibits to illustrate the effect of certain fertilisers on plant growth were to be seen. Nitrolim in the form of fine dust appeared entirely successful in eliminating yellow rattle from meadow land; at the same time it appeared also to have attacked the clover. Other experiments in the use of fertilisers for the destruction of weeds were to be noted.

Veterinary.—The veterinary exhibits included some excellent mounted specimens of organs and tissues affected by the various diseases which commonly attack farm stock, together with others representative of the parasitical and bacterial attacks.

Poultry.—An interesting exhibit was comprised in a series of mounted specimens showing the different stages in the incubation of a fowl. The first visible sign of the chick appears on the fourth day, and by the twelfth day the whole chicken is to be seen, with feathers just appearing. These are fully developed by the seventeenth day, and the last stage is the absorption of the yolk into the body. There were also specimens of poultry diseases and pests, and in the open was a pen of fowls arranged for a twelve months laying competition. Altogether a notable exhibition.

University of Birmingham.—From the Agricultural Research Laboratory of this University came a series of exhibits illustrating the parasitic diseases of animals and plants. The laboratory also illustrated the work upon which it is engaged in the important study of soil protozoa.

College of Agriculture, Holmes Chapel.—The College is engaged in a soil analysis of the county of Cheshire, and the mechanical analysis of some of the soils was illustrated. Another exhibit dealt with the improvement of pastures, particularly under the influence of lime and phosphatic manures. The influence of lime on some of the strong Cheshire soils was most marked, and it was interesting to note that the results from the use of ground limestone were not equal to those from caustic lime. Some models of dentition in the horse, and types of horse shoes for various purposes would be of interest to the farm student, and there was a good collection of specimens illustrative of the diseases of farm stock. One of these was a bad case of actinomycosis in the jaw of a cow, which was said not to have been affected in its general health. This college has also been investigating the disease resistant properties of varieties of potatoes, and exhibited maps showing their distribution.

University of Bristol.—The Research Station at Long Ashton sent an exhibit on similar lines to that seen at Bristol last year, which attracted a great deal of attention from the apple growers and cider manufacturers of the district.

Meteorological Office, South Kensington. This was the second appearance of the Meteorological Office in this section of the Show, and the exhibit comprised an extraordinary variety of interesting and valuable matter. Probably the most interesting thing from a farmer's point of view would be the diagrams which illustrated the relation between the crop yields and the previous year's weather. The crops selected were wheat and barley. The instruments used for recording observations were shown, together with specimens of the official weather reports and the scheme for their publication. Unfortunately, those in

charge of the exhibit had the opportunity, during the third day of the Show, of recording the rainfall during what must have been the worst thunderstorm of the year.

Agricultural Education Association.—As in previous years this Association provided an agricultural literature stand, at which the publications of the various colleges and research stations in the country were made available to those visiting the Show. One of the difficulties of those engaged in agricultural research is to bring the results of their work to the notice of the farmer, and the Association is very instrumental in disseminating information.

Nature Study and Rural Education: County Council Association.—This popular exhibit again occupied a large section and attracted the interest and attention of all those engaged in the administration of elementary education. It is not necessary to particularise the various exhibits, even were it possible when the range is so extensive, but it is satisfactory to note that the importance of hand-and-eye training, and of vocational education in rural areas is now so generally appreciated. A Conference on Rural Education was held on the last day of the Show, under the chairmanship of Sir J. Bowen Bowen-Jones, Bart.

Tobacco, Flax and Hemp.—For the third year the British Tobacco Growers' Society, Ltd., arranged for an exhibit and competition. England, Scotland and Ireland were all of them represented, and the expansion in the area under this crop, particularly on poor sandy soils, is of much interest. As in previous years, the exhibit was crowded throughout the week. Other "new" crops, or rather old crops resuscitated, were Flax and Hemp, of which a non-competitive exhibit had been arranged by the British Flax and Hemp Growers' Society, Ltd. Farmers would be particularly interested in the growth of Linseed, as exhibited by the South Eastern Agricultural College, and the experiment may have an important bearing on the question of feeding stuffs in the future.

H. M. FREEAR.
C. S. ORWIN.

THE FORESTRY EXHIBITION AT THE SHREWSBURY SHOW, 1914.

THE Forestry Exhibition at Shrewsbury consisted of 139 entries, and compared favourably in variety and interest with the Shows held in the three previous years at Bristol (180 entries), Doncaster (113 entries), and Norwich (103 entries). The arrangements were admirably carried out, as usual, by the two stewards, Mr. G. Marshall and Mr. C. C. Rogers. The Forestry building, roomy and airy, was constructed of Scots pine, the timber having been given for the purpose by a local Member of our Society. The outside exhibits of living trees were very interesting; and it is much to be desired that in some way or other this might become a greater feature of future Forestry Exhibitions. Mr. W. P. Ellmore, of Leicester, who was awarded a silver medal in the non-competitive Class 17, showed a large collection of different willows growing in tubs, accompanied by specimen bundles of the many kinds of rods derived from them. There were seven varieties of *Salix purpurea*, the most vigorous grower of which for covert purposes is said to be var. *continentalis*; two varieties of *Salix hippophaifolia*, recommended for planting on sewage farms, and numerous varieties of *Salix viminalis*, *Salix triandra*, and *Salix vitellina*. Mr. Ellmore has already done much for the important industry of osier-growing by his articles¹ in the *Journal of the Board of Agriculture* for 1911. The cricket bat willow (*Salix cærulea*) was shown in the form of two-year-old plants; but as is generally admitted² by growers in the eastern counties, this tree is best propagated by large sets.

There were also excellent displays out-of-doors of living ornamental trees by two nurserymen, Messrs. Dicksons, of Chester, and the King's Acre Nurseries, of Hereford, the former being awarded the silver medal and the latter the bronze medal in competitive Class 15. Amongst the rare trees exhibited by the Chester firm, were *Pinus monophylla* and *Picea omorica*, both of which are now very hard to obtain; while ornamental forms were exemplified by golden varieties of the Cornish elm, *Acer Negundo*, Common Oak, Alder, *Cupressus macrocarpa*, and Lawson Cypress. The King's Acre Nurseries exhibited a peculiar Persian Elm, and numerous examples of ornamental conifers and broad-leaved trees.

¹ Reprinted as *Board of Agriculture, Miscellaneous Publications*, No. 18, *The Cultivation of Osiers and Willows*, price 2d., post free.

² See article by A. Henry, on the Cricket Bat Willow, in *Trees of Great Britain*, VII, pp. 1763—1768, of which an abstract, compiled by Mr. A. P. Long, has been published in *Journal of Board of Agriculture*, XXI., p. 289 (July, 1914).

Reference may be made here to the fine Arboricultural Exhibition, which was held for the first time at the Royal Show. The number of rare and beautiful trees, shrubs, and climbing plants displayed was remarkable, many of them being new species from China, which were probably seen for the first time by many visitors.

Praise must also be given to a very interesting exhibit adjoining the Forestry Building, which contributed much to public interest in forestry at the Royal Show. Mr. Duchesne had established here, on behalf of the English Forestry Association, a band of workmen, who illustrated with their tools and materials some of the old rural industries, which are dependent on local utilisation of our native trees. One man from the beechwoods of the Chiltern Hills worked a pole-lath, a very ancient implement, not yet obsolete, used for fashioning the legs of chairs and similar articles. Curious baskets, said to be cheap and durable, were being made of cleft oak by a Cumberland workman. The manufacture of clog-soles, of barrel-hoops, of ash handles of all kinds, and of crates for use in the Potteries, was also exemplified by skilled craftsmen.

To return to the Forestry Exhibition. As in former years, there were two main divisions of exhibits, Classes 1 to 15 being competitive, while Classes 16 to 23 were for exhibition only. The show of planks was very large, the competition being keener than usual. In Class 1, oak, elm, ash and beech 6 ft. boards, the silver medal was given to the Earl of Powis and the bronze medal to Lady Wantage, the quality of the exhibits being extraordinarily good. In Class 2, larch, spruce, and Scots pine timber, represented by 6 ft. boards, the first prize was secured by Mr. T. J. Mytton More, while Lady Wantage again obtained the second prize. In Class 3, specimen boards of other broad-leaved species, the competition was very keen among six competitors, the first prize going to Lady Wantage, and the second prize to Lord Harlech. In Class 4, other sorts of coniferous timber, Mr. J. Murray Naylor, who was awarded the silver medal, made an interesting display of twelve species, the most remarkable of which were:—a Redwood (*Sequoia sempervirens*) plank, 2 ft. wide, cut from a tree at Leighton Hall, which contained 120 cubic ft. of timber at 50 years old; and a cryptomeria plank, also about 2 ft. wide, cut from a tree of 58 years old, which contained 58 cubic ft. of timber. Lieut.-Col. Lloyd, who obtained the bronze medal, also exhibited twelve species. In class 5, planks of home-grown woods of all kinds, Lady Wantage secured the silver medal with an exhibit of 23 specimen planks, all of different species, the finest of which was perhaps one cut from a walnut tree 100 years old that measured 95 cubic feet. The bronze medal in this class

was awarded to Mr. C. C. Rogers. In Class 6, panels, boards, home-made furniture, &c., the first prize was obtained by Mr. C. C. Rogers, and the second prize by Earl Brownlow.

Classes 7, 8, and 9, devoted to gates, brought forward 27 entries. In the two classes of field gates, Mrs. E. M. Talbot, of Edmond, and Lord Harlech, each obtained a silver and a bronze medal. In Class 9, wicket or hunting gates, Mrs. I. M. H. Morris-Eyton, of Wood Eaton Manor, Stafford, obtained the silver medal. In Class 10, tree guards to combine protection from stock and vermin and to be made of home-grown timber, there were seven entries, the first prize going to Lord Harlech, and the second prize to Mr. C. C. Rogers.

Two classes were devoted to fencing; and in Class 11, restricted to that constructed from home-grown timber, the silver medal was awarded to Messrs. John Walker, Ltd., of Uttoxeter, who made an extensive display (12 entries) of different kinds of fencing and hurdles, the material used being mainly cleft oak. The bronze medal was awarded to Lieut.-Col. Lloyd. In Class 12, fencing made of foreign timber, the first prize was awarded to Messrs. Armstrong, Addison & Co., Sunderland, and the second prize to the Building Material Supply Stores, Shrewsbury.

In Classes 13 and 14, which were for specimens showing the quality of timber grown on different soils, and for stems and planks illustrating the effect of dense and thin crops on branch-suppression and quality of timber, the entries were confined to one exhibitor, Lady Wantage, who was awarded a silver medal in each class. As these two classes, though apparently of great interest and importance from a silvicultural point of view, do not seem to attract much competition usually, they might very well be combined in future into one class. Class 15 has already been dealt with.

In the non-competitive classes, the most remarkable exhibit was the very fine collection of cones and of specimens of the foliage and inflorescence of broad-leaved trees, brought together with much labour and enterprise by Mr. C. C. Rogers, who was awarded a silver medal (Class 18). The collection of cones was astonishingly complete, comprising over 50 species of *Pinus*, 27 species of *Abies*, 26 species of *Picea*, and numerous species of the other coniferous genera as *Larix*, *Cedrus*, *Araucaria*, *Tsuga*, *Keteleeria*, *Pseudotsuga*, *Juniperus*, *Cupressus*, *Libocedrus*, *Callitris*, *Sequoia*, *Athrotaxis*, *Cryptomeria*, *Taxodium*, &c. This instructive exhibit was accompanied by a collection of fungi, selected by Professor Biffen, and a series of illustrations of fungoid pests by Mrs. Carleton Rea, which were lent to Mr. C. C. Rogers for the Exhibition. The Earl of Powis received a bronze medal for exhibits in Class 18.

The Midland Reafforesting Association, who were awarded a bronze medal, showed photographs, maps and plans, illustrating the nature of their work in encouraging the planting of pit wastes, railway banks, ballast heaps, and school play-grounds in the Black Country and other parts of the Midlands. It is satisfactory to learn that a grant of 100*l.* out of Development Funds was given in 1913 to the Association for the formation of experimental plots, Moorcroft being selected as the most desirable site.

In Class 19, Forestry Tools and Accessories in use on Exhibitors' Estate, Mr. C. C. Rogers made an admirable exhibit, for which a silver medal was awarded. In Class 20, Insect and Fungoid Pests, a bronze medal was awarded to the Earl of Powis, for exhibits from Walcot and from Powis Castle. Mr. C. C. Rogers showed an interesting exhibit, arranged by his agent, Mr. E. P. Rogers, illustrating the attack and death of a Douglas fir by *Agaricus melleus*. A bronze medal was awarded to the Earl of Powis for specimens of timber illustrating the effects of creosoting (Class 23).

A special exhibit by Messrs. R. Groom, Sons & Co., of Wellington, Salop, was awarded a silver medal, though it was not entered in any of the regular classes, 1 to 23. It included specimens of bendware, turnery and miscellaneous woodware, showing the process of manufacture from timber in the rough to the finished article. This varied collection illustrated well the uses to which woods of different species are applied. Thus we noticed sycamore being used for spade handles and for wooden bowls, ash for hockey sticks, elm for yokes used in carrying water and for the rims of riddles, and beech for shovels, &c. Also unclassified was an exhibit of wood pulp and paper making, lent to Mr. C. C. Rogers for the Exhibition, by Mr. A. Macorquodale, of Cound Hall, and by the North Wales Paper Company, Flint.

A. HENRY.

Royal College of Science,
Dublin.

REPORT OF JUDGES ON PLANTATIONS AND HOME NURSERIES COMPETITION,

1914.

THE counties included in this year's district are :—Shropshire, Staffordshire, Montgomery, and Radnor, and considering that part of the area is a tract of land famous for its production of timber, it is not altogether surprising that the entry is a record one in connection with these competitions. The numbers were :—Shropshire 36, Staffordshire 4, Montgomery 10, and

Radnorshire 8, a total of 58 entries, 51 of which were for plantations and estates and 7 for nurseries.

Taking the classes in the order of the schedule, the plantations are first dealt with.

CLASS I. HARDWOODS AS FINAL CROP.—Plantations not less than 4 acres in extent, of not less than 10 years' growth, and which have been weeded or lightly thinned only. Restricted to estates having more than 300 acres of woodlands.

In this class there was only one entry, and it was more or less a purely ornamental park group. The trees were chiefly beech planted 15 to 20 ft. apart, and the size of the plants used was 6 to 8 ft. It was considered that this, strictly speaking, was not a plantation within the meaning of the competition, and therefore no award was made.

CLASS II. HARDWOODS AS FINAL CROP.—Not less than 4 acres, and for plantations up to completion of second thinning.

There was only one entry in this class, and again no award was made. The plantation had been formed with an indiscriminate mixture of oak, sweet chestnut, birch, larch, spruce, Scots and other pines, with a few Douglas fir, Sitka spruce and other species. In the first instance, too few hardwoods had been planted to form a successful final crop, and the large number of other species employed, makes the mixture quite unworkable. Thinning had taken place far too soon, evidently before canopy was established, with the object, no doubt, of saving some of the hardwoods which were in danger of extinction by trees of more rapid growth. There is now only about half a crop on the ground, the surface is practically covered with grass and other weeds, and the trees left must become branchy and coarse owing to the premature removal of so many stems and consequent too free admission of light. It is worthy of note that on higher land adjoining there is an old wood with a large proportion of splendid mature beech, while not a single beech was seen in the young section.

CLASS III. FOR CONIFER PLANTATIONS.—Not less than 4 acres in extent, confined to estates with not less than 300 acres of woodlands.

There was a very large entry in this class, no fewer than 18 plantations competing, but there was no difficulty in deciding the awards. The silver medal was gained by the Earl of Powis for a 14-year-old wood known as "Cwmbychan" on his Powis Castle Estate, Montgomeryshire. This plantation extends to 30 acres and occupies a fairly steep slope at an elevation of 700 ft. to 800 ft., with a northern exposure on a soil of medium loam. The average rainfall in the district is 46 ins. The trees, mainly larch with Scots pine more or less in groups, were planted by the pitting method at 3 ft. 6 in. apart, and the age of the plants

used was 2-years-1-year. The cost of planting is given at 4*l.* per acre, and the cleaning of the whole area is put at 4*l.* per annum for the first 4 years. Although following a previous crop, there is little sign of disease; a few Scots pine had succumbed to attacks by *Agaricus melleus*, and a few larch stems were suffering from larch canker. The larch has now attained an average height of 25 ft., several being measured up to 33 ft., with an average girth¹ at breast height of 18 ins. The average height of the Scots pine is 20 ft., with a girth of 12 ins. It is intended lightly to weed or thin this crop next season, taking out only small suppressed and any badly diseased stems, but there will still be a full crop at the age. It might have been an improvement if all the Scots pine had been planted in groups. One group noticed will not require any attention in the way of thinning for some years, the trees were forming canopy, the side branches were becoming suppressed, and the fall of needles was forming a good layer of humus. Where the Scots pine, fortunately not too numerous, are mixed singly with the larch, they will not benefit by the thinning out of the larches, as they will have too much growing space and become coarse and knotty stems, one of the chief objections to mixing Scots pine singly with larch. At this stage, when larch will naturally begin to open out and must have more light, Scots pine should be crowded in the thicket stage in order to suppress and kill off the naturally strong side branches which otherwise develop. This is a promising wood, which should in time produce a very valuable crop of timber.

The second prize in this class was awarded to Mr. F. J. Harrison, Maer Hall, Staffordshire, for "Rowley's Wood," extending to nearly 8 acres, lying at an elevation of 445 ft., rainfall 35 ins. The crop here is practically pure Scots pine, 12 years old. The wood has a southern exposure, and the soil is light sand and gravel. The trees were planted by pitting at 4 ft. intervals, but there is no record of the age of the plants used, though it is probable they were 2-years-2-years plants. The cost of planting cannot be given, as there is no record of the formation of the wood. Little or no cost was incurred in fencing, as no netting was used, the old fences merely being repaired. This is a promising wood on a very poor soil, and very free from disease, although it follows a crop of Scots pine. The average height varies considerably in different sections of the wood, in some places being as high as 17 ft., and in other places, chiefly on knolls, only 6 ft., owing probably to the soil being very thin and poor. A few Corsican pine were noticed among the Scots, and these were doing well, being of equal

¹ Where girths are given they were taken in all cases at breast height.

growth. Some larch had been included in the original planting, but on this light, poor soil, these had never done well. Fortunately, they had not been numerous enough to affect the crop as a whole.

CLASS IV. FOR CONIFEROUS WOODS of the same description as Class III., but up to the completion of the second thinning. There were several entries in this class, but the Judges had no difficulty in awarding the first prize to an outstanding plantation on the Stokesay Court Estate in Shropshire, known as "Stokewood," the property of the trustees of the late Mr. H. J. Allcroft.

This plantation is situated at an altitude varying from 500 to 700 ft. on a light loamy soil with gravel patches, and occupies a steep slope, having a northern aspect, near the river Onny. It extends approximately to 127 acres, and the age is 28 to 30 years, having been planted in sections. It was formed on land which had been previously under scrubby hardwoods. This was cleared and the ground worked and cropped with potatoes before being again afforested. The trees for re-planting were bought from public nurseries, and planted out by pitting at 6 ft. apart, and the species originally chosen were European larch and spruce, with a mixture of sycamore, beech and chestnut, and a small proportion of other species. Throughout the whole area, groups of Oregon Douglas fir and a few plots of Corsican pine and Scots pine were introduced. Very little cleaning was done, and little filling up required. The crop now consists mainly of larch, with single trees of beech and sweet chestnut, with a few sycamore scattered through it, and groups of Douglas fir and Corsican pine. The spruces have entirely disappeared, except where bordering the rides. Many of the larches in the more favourable situations have attained a height of 65 ft., the average of the whole crop is from 50 ft. to 60 ft. The following are the average girths of a large number of trees measured in different parts of the wood:—

Larch	24 in.
Chestnut	22 "
Beech	20 "

Some of the larger trees gave girths of—

Larch	47 in.
Douglas fir	51 "
Spruce	38 "
Corsican pine	36 "
Sweet chestnut	40 "
Beech	34 "

Larch, not the largest trees, has been felled containing 35 cubic ft. It is interesting to note that the Corsican pine, which were practically equal in height growth to the larch, had

escaped damage by squirrels, which had destroyed the Scots pine some years ago, although the two species were growing side by side. A few of the larches had also suffered slightly from squirrel damage. Very little canker had been seen, and the trees are now past the stage when any damage is likely to arise from this disease. The density and surface conditions here are very striking, especially so in a plantation where the greater proportion of the crop is composed of such lightly foliated trees as larch. Scarcely any grass is found in the wood, the surface being covered by a layer of needles and leaves. This desirable state is doubtless due largely to the influence of even the small percentage of beech present in the crop. The system of thinning practised here has been to remove only suppressed and dying trees, and the methods are justified by the present condition of the crop, which is composed of vigorous trees with long, straight clean boles. This wood we have recommended for the award of the Gold Medal of the Royal Arboricultural Society for the best plantation entered in this competition.

The second prize plantation was found on the Kerry Estate, in Montgomery, the property of the executors of the late Mr. John Naylor. It is known as "Cwmgolog." The wood extends to 113 acres, and was formed 24 years ago by planting larch and Scots pine, which were notched in land formerly used as a sheep walk. The trees used were 4 years old, and were set out at 4 ft. by 4 ft., the cost including fencing being given at 5*l.* per acre. The soil is clay, overlying shale, and the situation is a steep slope with a westerly aspect at an elevation varying from 1,000 to 1,500 ft. The average annual rainfall is 36 in. The crop is practically pure larch, the Scots pine having been more or less suppressed, which is not altogether unlooked for, considering the heavy soil and high elevation. Disease has been prevalent, and has caused some damage, but the trees are recovering and have reached a stage when little further injury may be feared. After thinning, the stems had all been "brushed up" to a height of 5 ft. or so, only dead branches being removed, and it was claimed that this operation had a great deal to do with checking the disease by admitting more air and light. It is probable also that by the time this was done the trees were at a stage when they would be less liable to suffer, having formed a thick, rough bark, and the stronger stems were beginning to throw off the effects to some extent. The average height of the trees is 45 ft., and the average girth of measured trees 21 in. The crop has been once thinned, and dead trees removed every two or three years, the material being used for estate purposes. For a larch wood of this age there is a very good overhead canopy, and the surface soil conditions

are still fair, being mostly mossy and humus covered, but grass is appearing in places, and with an almost total absence of shade bearing trees, this condition may, unfortunately, become general all over the wood, unless an undercrop of a shade bearing species is established. A few beech on the ride sides were doing good in that the surface for some distance round was being shaded and the ground covered with their leaves. A small percentage of beech throughout the wood would have been a very great benefit to the plantation, and its future development more or less assured. At its present stage, however, this cannot be considered anything but a very excellent wood and, with other plantations on this estate, provides a good example of what may be accomplished on a poor soil at a high elevation.

In connection with some observations on the above wood, it may be worth noting that in the case of a considerable number of the plantations visited on different estates, the crop was comprised of pure light demanding species, some of pure larch. In every case where the crop had reached a certain stage of its development, grass was coming in, and in some cases it was only too evident that the days of best growth were already over, and the difficulty was to find means of restoring the crop to a healthy state. It was pointed out that underplanting with a shade bearing tree, such as Douglas fir, which does well in the district, would secure the object in view, but almost invariably this would mean enclosing the area with netting for a second time against vermin, such as rabbits, and as this entails a considerable amount of expense, it could not be entertained. The obvious remedy is to exterminate the rabbits. Where rabbits cannot be exterminated, it would seem prudent to introduce a certain percentage of beech or other shade enduring trees, when the land is planted. In groups or strips, there is not the danger of the soil improving species, if of slow growth, becoming suppressed or of becoming too aggressive if of rapid growth.

There was only one entry in CLASS V., HARDWOODS AS FINAL CROP, not less than 2 acres in extent, restricted to estates having less than 300 acres of woodlands, the stage being that up to the first thinning.

The plantation, namely "Cefn-ant," is on a loamy soil with clay subsoil, situated on a steep slope, with a south-eastern aspect. It is on the Glansevern Estate, in Montgomeryshire, and is the property of Mr. A. Humphries-Owen. It is 20 years old, and the crop is of pure ash and the plantation was formed after a previous crop of oak, ash and beech. The plants used were 1-year-2-years, set out at 4 ft. apart, and the method of planting was to prepare the holes with a mattock, and insert

the plants with a spade. The cost per acre is given at 5*l.* 1*7s.* and the filling in of failures through damage caused by rabbits is stated to have amounted to as much as 2*l.* per acre. The trees have now reached an average height of 33 ft., with an average girth of 12 in., and are a nice healthy crop of straight, clean stems. It is intended to underplant this wood with beech in order to preserve the fertility of the soil, and it is thought that even if the undercrop does not prove valuable as timber, the present crop will be considerably improved by the introduction of the soil improving species. While this, of course, cannot be disputed, it is doubtful if beech is the best species to use at this stage as an undercrop. The ash is now 20 years old, which, given, say, an 80 years' rotation, leaves only 60 years for the beech if the two species were cut away together. Douglas fir, on the other hand, which promises exceedingly well in this part of the country, where there is shelter and a fair rainfall, if introduced 10 to 15 years hence, would in 50 years form a valuable crop, in addition to maintaining soil fertility. The beech would have probably been better planted in groups or strips at the same time as the ash. This wood was awarded a first prize.

CLASS VI. HARDWOODS AS FINAL CROP, as before, but the stage that between the first and second thinning. The first prize was awarded to a plantation known as "Caethygley," on the estate of Mr. Humphries-Owen. The wood extends to 30 acres, and is situated on a steep slope, with a north to north-east aspect. The altitude ranges from 450 to 700 ft., and the soil is a light loam on clay. The plantation was formed 39 years ago on practically waste land, covered with gorse, and the species selected for planting were oak, ash, sycamore and sweet chestnut, mixed with larch. The age of the plants used was 1-year-2-years, the spacing being 4 ft. by 4 ft. The method of planting, which has much to recommend it, was that general on the estate, namely, the holing and preparation of the ground by means of a mattock. The cost of formation is put at 5*l.* 10*s.* per acre, while the cost of cleaning was 10*s.* per acre per annum for 4 years.

The trees are now 50 to 60 ft. high, and the girths average—

Sweet chestnut	44 in.
Oak	24 "
Ash	22 "
Sycamore	32 "

Chestnut appears to grow exceedingly well here, and it is stated to be free from shakes, while the price realised is quoted at 1*s.* per cubic foot.

This is a good wood, the best hardwood plantation inspected by the Judges in this competition. It has been carefully tended, and gives promise of yielding a valuable crop of timber, and is another good instance of waste or neglected land being turned to a profitable use.

The other entry in this class was awarded second prize, namely, "Smeathens Wood," belonging to Mr. W. F. Beddoes, of Minton, Shropshire. Part of this plantation, on a strong loamy soil, is composed of larch and oak, the other portion being larch, oak and beech. The whole were set out at 5 ft. on a steep bank at an altitude of about 750 ft., having a south-east aspect. The plants, which were pitted, were 2-years-2-years, and the cost of formation was 6*l.* per acre. The ground had carried a previous crop of oak, and was already fenced. None of the hardwoods have been removed in thinnings, larch only being taken out. The height of the trees in the larch and oak section is :—Larch, 35 to 40 ft.; oak, 16 ft.; the former having a girth of 18 in. and the latter 8 in., while the larch are of equal dimensions in the other portion, which is one year younger. The oaks are 2 ft. higher here, and the beech measure 28 ft. by 12 in. in girth.

This is an interesting plantation, inasmuch as the numbers of oak and larch per acre will be about equal in both sections, while the younger portion has the beech in addition, and it was very noticeable here to what an extent the trees and soil have benefited by the addition of the beech. The oak and larch were distinctly better, being cleaner and better stems, while the difference in the surface conditions were striking, being all in favour of the addition of the beech.

There are enough oaks to form a crop with the addition, probably, of some of the best larches, and if the present careful management is continued, this should prove a very satisfactory wood. The land is capable of growing good oak, as was seen by the trees growing in some older woods adjoining.

CLASS VII. FOR CONIFERS ON ESTATES WITH LESS THAN 300 ACRES OF WOODLANDS, the stage being up to the time of the first thinning.

There was only one entry and a bronze medal was awarded.

This plantation, which extends to about 50 acres, is on the estate of Mr. T. T. Moore, Old Hall, Dolan, Radnorshire, and lies at an elevation running up to 1,500 ft., with an east and north-east exposure. The trees, mainly larch, with Scots pine in the top and exposed margins, were notched in on hill land, the spacing distance being 6 ft. by 6 ft. The age of the plants is not known, and the planting was done in the autumn of 1902 at a cost which is stated to have been 2*l.* 8*s.* per acre.

The cost of cleaning is estimated at 2s. per acre annually for the first 4 years.

The larch, which forms the main portion of the crop, now average 12 ft. in height. The trees in the lower part of the wood, near the bottom of the valley, had evidently suffered very much from frost, and attacks of the larch mining moth; but were growing better higher up the slope, where the trees appeared to be wider apart, and where there was a certain amount of shelter. On several peaty patches the larch had failed entirely.

The Scots pine had attained the same height as the larch in the lower parts of the plantation, but became wind-swept and stunted on the higher lying portions, and was practically a failure on some damp places towards the highest point of the wood.

At this high altitude and with a rainfall of 45 in., spruce would have been a more satisfactory tree than Scots pine, and even now groups of spruce might, with advantage, be introduced where the other trees have failed. Beech or sycamore would have formed a better wind break than the Scots pine, which is not always a suitable tree for this purpose.

The better parts of the wood are distinctly promising and show good growth, considering the altitude and exposed situation.

CLASS VIII. FOR CONIFERS AS BEFORE, but the stage that between the first and second thinning.

There was only one entry in this class, and a silver medal was awarded to Mr. W. F. Beddoes for "Warthill Wood."

This plantation, extending to 38½ acres, was established thirty-five years ago, on land formerly a sheep run, and the species selected were larch and Scots pine, with a little ash on the lower ground, the plants being 2-years-2-years. The site is very exposed on three sides, namely, north, south and east, and the elevation ranges from 800 to 1,000 ft., the highest point being 1,065 ft. The cost of formation was 77.11s. per acre, but the subsequent expenditure for cleaning and filling up is not known.

The trees have now attained to an average height of 40 to 45 ft., and an average girth of 14 in., but the difference of growth is very marked on the exposed side compared with the more sheltered portion. On the windward side of the wood the larches have suffered severely from canker, growth has been very slow, and many of the trees are bent or "sabred." On the sheltered side the trees are almost as large again, being long, straight, clean poles, giving promise of becoming quite a good crop of timber.

Owing probably to the heavy soil and high elevation, the Scots pine are not satisfactory for the age, and are never likely to form large trees. The small section of ash looks fairly well, although there is a certain amount of canker present.

It may be noted that few satisfactory Scots pine woods were inspected in the whole district. A large proportion of the woodlands are situated from 1,000 to 1,500 ft., the rainfall all over is fairly high, ranging from about 35 to nearly 50 in., and the soil is generally heavy. These conditions, acting together, do not favour the growth of Scots pine, and it was interesting to observe that in many cases, where this species had almost failed, Corsican pine, where found, were doing exceedingly well and giving promise of forming very fine stems.

CLASS IX. FOR A WOODLAND AREA, showing systematic management, including the renovation and conversion of an unprofitable wood into a profitable condition. Two excellent entries were selected for the awards out of several competing.

The first prize was gained by Sir H. W. A. Ripley for a well-managed area of woodland on the Bedstone House Estates, Shropshire.

The woods under treatment extend to nearly 500 acres, the elevation varies from 400 to 1,100 ft., and the soil over all is a light loam. A well-thought-out working plan has been drawn up by the owner and his agent, and the work, which has been in progress for some years, is being very carefully and well carried out. The scheme provides for cutting and replanting being carried out from three centres, all the work proceeding against the direction of the prevailing wind. As the mature crop consists to some extent of Scots pine, three or four years are allowed to elapse between the clearing and restocking of the ground. The reason for allowing this period to elapse is, that it was found there was great danger of attacks by the Pine Weevil. These insects are still to be found, though not numerous, and to guard against increase, traps, consisting of pieces of newly felled pine bark, are laid in places in the young sections. These are visited in the early morning, and the insects, which are attracted by the newly felled bark, are easily collected and destroyed.

The trees used for restocking the areas are mainly conifers, but for some years a percentage of beech and sweet chestnut have been included. These are promising well, and it is certain that the woods will benefit greatly by the addition. Japanese larch are being planted at 5 ft. intervals, which, by the rate of growth shown, seems to be a suitable distance.

Several excellent young compartments were seen, though it was noticed that the honey fungus (*Agaricus melleus*) was

causing the deaths of some of the conifers, notably Japanese larch and Scots pine.

This is probably the fungoid disease most to be feared in the district generally, where land carrying a crop of oak or oak coppice is being cleared and restocked with conifers. Removal of the roots of the oaks at the time of felling, or cutting the trees in such a manner as to allow them to throw out fresh shoots, and so keep the roots alive, seem to be measures worth considering.

The second prize was awarded to Mrs. Cathcart, of Wootton Lodge, Staffordshire, for "Wootton Wood," another area showing what can be done in the way of renewing and improving the woodlands by careful and well-thought-out schemes.

The area under treatment in this case is 369 acres in extent, and the elevation runs from 350 to 800 feet. The existing crop is mainly oak and, as the soil generally is light sand and gravel, the greater portion of the trees have not attained to large dimensions, and in many places the stems are decidedly poor.

The work of regenerating the wood was commenced nine years ago by clearing away one of the worst portions and restocking the area mainly with conifers, namely Scots pine and larch, and a section has been dealt with every year since. The plans and reports submitted show that it is the intention to gradually clear and replant the wood.

The working scheme has been well thought out, and aims ultimately at establishing a regular series of age classes. While this is so, it may be well to point out that full consideration has been given to the preservation of the amenities of the property.

CLASS X. PLANTATION OF NOT LESS THAN 2 ACRES consisting of Douglas fir, Sitka spruce, Japanese larch, Corsican pine, or any other rarer conifer, pure or mixed, of not less than five or more than thirty years' growth.

There were seven entries in this class, and though all, at the present time, in a sense, are good, yet in some cases the species used—sometimes three or four in number—have been so mixed, that it is doubtful if their present condition will be long maintained. Already one or two kinds are beginning to take the lead, and it is probable that in a few years the slower growing species may fall behind to such an extent that they will become suppressed and finally blotted out, to the detriment of the crop as a whole.

The first prize was awarded to a part of the "Rhallt" plantation, on the Powis Castle estate. This section of 3½ acres was formed five years ago, on land which previously carried a crop of scrubby oaks, &c. It is situated on a

well-sheltered slope, with a south-west aspect, lying at an elevation of about 600 ft. The soil is a heavy loam, and the species selected were Douglas fir and Japanese larch. The planting distance was $4\frac{1}{2}$ ft. by $4\frac{1}{2}$ ft., the work being done by the pitting method; 2-years seedlings being used. The cost of formation was 7*l.* per acre, while 30*s.* per annum was spent for the first three years in cleaning the area. The Douglas fir was planted pure, and occupies the lower and more sheltered ground, while the Japanese larch, also pure, was planted on the higher parts.

The trees here show an extraordinary rate of growth, the Douglas firs measuring from 15 to 20 ft., and the larches are almost of equal growth.

Canopy is already established, grass and weeds are being rapidly killed out, and from every point of view this was considered a very excellent plantation.

With species showing such a rapid rate of growth, the cost of formation might have been reduced to some extent by a wider spacing distance being adopted.

The second prize was gained by Mr. J. Murray Naylor, Leighton Hall, near Welshpool, for the plantation known as the "Pole Cover." This is five years old, and follows an inferior crop of larch. It lies at an elevation of 1,000 to 1,125 ft., and is 12 acres in extent. The situation has a northern aspect, the soil is clay on shale, and the average annual rainfall is 35 inches.

The species selected for planting was Sitka spruce pure, planted out at a distance of $3\frac{1}{2}$ ft. by 4 ft., and the cost was 4*l.* 6*s.* per acre. The trees were purchased from the Continent as 2-year seedlings, and were lined out in the home nursery for two years. No filling up was necessary, and the cost of cleaning the whole area was 3*l.* per annum for three years.

The general method of planting on this estate is to prepare the surface and the pit with a mattock, the plant being inserted with a special planting trowel. This appeared to the Judges to be the most suitable method, and to give more satisfactory results, than any means employed on the various estates visited.

Trees were measured up to 9 ft. in height, while the average of the whole was about 7 ft. Several of last year's shoots were 4 ft. long, while growths of 2 ft. 6 in. to 3 ft. were common.

The crop, which is very regular, is beginning to form canopy, and when this is complete, the growth, it is considered, will be even more satisfactory. For the first two years the trees suffered slightly from attacks of the Pine Weevil and other beetles.

Another entry in this class was a plantation of pure Douglas fir, which was looking very promising, but the cost of formation was given at nearly 17*l.* per acre, and this, it was felt, was sufficient to justify the Judges in withholding an award, though they did so with regret.

CLASS XI. FOR THE BEST MANAGED WOODLAND ESTATE, not less than 1,000 acres in area, the Judges to take into account the production of timber, ornamental planting, planting for sporting purposes, and improvement of residential amenities and proper management of hedgerow timber.

This class produced no fewer than ten entries, and the Judges have pleasure in recording that in all cases the woodlands were being worked on a more or less definite scheme or system. On several of the areas good work was being done, and much care and thought was being exhibited in the management, but there was only one entry, that of Mr. J. Murray Naylor, of Leighton Hall, where it could be said that the woodlands had reached the final and complete stage of systematic management, and this was awarded the first prize.

The woods on the property extend to 1,000 acres, being for the most part on steep, hilly ground, situated at an altitude of 400 to 1,300 ft. The soil generally is heavy loam and clay, and the average rainfall is 35 in.

The rotation has been provisionally fixed at about 80 years, which means that about 12 acres are taken in hand annually, and the working plan shows that at this rate of progress the older woods, which are more or less in a series of age classes, will be cleared by the time the younger woods have reached the aged fixed in the scheme. The system is to clear, cut, and replant each section dealt with, the work proceeding from several centres. Conifers chiefly are being depended on for the work of replanting, but in the more recently stocked sections a percentage of beech is being added, which should prove of great service in strengthening the crop against damage by wind.

In one wood at 850 ft. elevation a plot of western larch, pure, about 1 acre in extent was seen. The trees were raised from seed sent by Dr. Henry, and were planted out two years ago as 3-years-old plants, the distance apart being 5 ft. These are looking vigorous and promising, the average height is 4 ft., while many of the individual trees are over 6 ft., and had made growths last year up to 21 in.

A section of 23 acres, known as the "Roundabout," was the best plantation of its age seen in the competition. The elevation ranges from 700 to 900 ft., and the aspect generally is due west. The species here are larch and beech on the higher ground, pure Japanese larch next, with Douglas fir also pure at the

bottom. The planting was done in 1910-11, and the method adopted has already been described. The planting distances were $1\frac{1}{2}$ ft. by $4\frac{1}{2}$ ft. and 5 ft. by 5 ft. It is interesting to note here that 7,000 of the Douglas fir used in restocking, were taken up as natural seedlings on a part of the ground, after a crop of larch had been cleared away. The plants were taken and lined out in the home nursery for a year before being set out permanently.

Many of the Douglas firs, although only four years planted, measure up to 10 ft. in height. A few rows of the Colorado variety showed the slow rate of growth at this stage as compared with the green or Oregon variety. Many of the plantations in favourable situations are being largely restocked with green Douglas fir, which grows most luxuriantly here. Already timber of this species has been sold at 8d. per cubic ft. and, used as fencing on the estate, it is found to last as well as larch.

Numerous other fine young woods were inspected, notably one containing a section of 27-years-old ash, with a few larch, spruce or beech. The ash, which are very fine, are quite 60 ft. in height, and have straight, clean boles. This should prove a most valuable crop.

Among the large number of ornamental trees in the park and grounds, some of them the finest of their kind in this country, attention must be drawn to the magnificent groups of Californian redwood (*Sequoia sempervirens*), two of which contain 34 and 11 trees respectively. The trees, 58 years old, and standing about 9 yards apart, are over 100 feet in height, and have clean boles of 30 to 40 ft. These are probably the most remarkable groups of exotic forest trees to be found in the country.

The home nursery, though small, was found to contain a large number of healthy trees, such as Douglas fir, *Thuja gigantea*, *Abies grandis*, *Cupressus nootkatensis*, and other species, all raised from seed collected from specially selected trees on the estate.

The splendid systems of roads and rides laid out in the woods are also worthy of mention. Although the elevation varies something like 900 ft., the whole of the ground can be covered by roads having an easy gradient. This is most important, especially in a hilly country, and it must add considerably to the value of the timber grown on this estate.

The second prize was gained by Lord Barnard for the woodlands extending to 1,500 acres, on his estates in Shropshire.

The plantations here are also being gradually brought under a systematic scheme of management, the only sound and satisfactory manner in which woodlands can be worked. The

woods lie at altitudes ranging from 400 to 1,300 ft., and the average annual rainfall of the district is about 34 in.

The land lying at the lower altitudes is being stocked with the idea of having hardwoods as the final crop, while the higher ground is being planted almost entirely with conifers.

On the Wroxeter portion of the property two very fine young larch woods were seen. The first, known as "White Cottage Plantation," is 21 years old, and extends to 46 acres. There are now on an average 532 stems per acre, having an average height of 30 ft. and girth at 6 ft. of 16 in. In addition to the larch, there are 93 other trees per acre, mainly hardwoods, present in the crop. This is a very promising wood which should ultimately yield a large amount of valuable timber.

"May Plantation," 20 years old, was also found to be a very fine wood. It is 20 acres in extent, and the crop is practically pure larch, which number 720 stems per acre. The height is from 25 to 30 ft., and the average girth 14 ins. There are 110 hardwoods per acre mixed with the larch.

"Jubilee Plantation," on the Cressage Estate, is similar to the former, but the stems here number 890 per acre, and the wood was formed in 1888. The trees are 30 to 35 ft. high, and have an average girth of 14 ins. The elevation here is 360 ft., and the situation fairly flat.

In all these woods the treatment has been the same, namely, the removal only of diseased and suppressed trees. As the canopy is now becoming broken to some extent, and the surface inclined to grow grass and weeds, it is proposed to remove a certain number of stems, taking all weakly and badly grown trees, and to underplant the whole with a shade bearing species. This is to be done in plots, each of a certain area, the species selected for the undercrop being beech, Douglas fir, Lawson cypress, and *Thuja gigantea*. As the plantations are exceptionally good for pure larch at this age, they will prove more and more interesting in the course of time as experimental plots.

Underplanting can be done here without any additional expenditure being incurred for fencing. The forester has the control of the rabbit catchers, and consequently rabbits are anything but numerous in the woods.

The older woods in some places are carrying valuable crops of timber, for instance, the mature section of larch at the foot of The Wrekin, and here also are evidences of very careful attention. The ditches are kept in capital order, which is important in many of the woods growing on heavy soils and on flat situations.

The hedgerow timber is in excellent order and greatly adds to the amenities of some parts of the estates.

The system of book-keeping for the woods is exceedingly good. A strict account is kept of all classes of material from the area under treatment, including the numbers of posts, &c., used on the estates, also of each item of expenditure incurred in replanting.

The third prize was awarded to Mr. C. Coltman Rogers for the woodlands on his Stanage Park Estate, in Radnorshire. The area under plantations is 870 acres, and the elevation ranges between 400 and 1,400 ft.

Considerable attention is paid to the plantations on this estate from a sporting point of view, but this is not allowed to interfere with the scheme for gradually bringing the woods under a proper system of management, with which a very good commencement has been made.

The owner considers that the shooting has really improved since the plan of clear felling and restocking a portion of the area each year has been introduced. It is thought that the woodlands on this estate would be difficult to equal from the point of view of woods managed for the production of timber and sport combined, not, as is unfortunately too common, of running the woods as a game preserve, and looking upon the timber as a kind of "bye-product."

Planting has been going on almost continuously from 1883, the number of trees put out annually for 31 years is 17,853, the average number per acre planted being 2,470. Beech, it may be said, form about 5 per cent. of the total, and in this connection it may be noted that well-grown mature beech from this estate has been sold recently at 1s. 3d. per cubic foot.

Interesting and detailed accounts have been kept since 1869 of the number of trees of the different species planted each year, with a note of the acreage, aspect, elevation, and full particulars of each section so stocked.

Larch thinnings find a ready sale, and the prices realised seem very satisfactory. A consignment, the product of 500 poles, 9 ft. long by $1\frac{1}{2}$ to 2 ins. diameter at the small end, worked out as follows:—

T.	C.		E.	s.	d.
1	17	tops at 20s.		1	17 0
5	0	butts at 52s.		13	0 0
Total weight			6	17	14 17 0

making the value in the wood $7\frac{1}{2}d.$ per tree, while the cost of conversion and haulage to the nearest station is put at $1d.$ per tree.

The best use is made of all material produced, and all work is done in a very thorough and economical manner.

The park and grounds contain a large collection of rare trees, which is being added to very considerably by the present owner. A Sitka spruce above the gardens is one of the best in the kingdom. Its height is nearly 120 ft., and it has a girth at 5 ft. from the ground of 136 in. There are also fine specimens of *Picea rubra* and *Larix dahurica*. Two of the latter are well over 100 ft. high.

The Judges had also pleasure in commending the woods on the Shavington and Cloverley estates of Captain Heywood Lonsdale, which are being worked on a scheme drawn up by the father of the present owner, and revised by the late Professor Fisher. The area is 700 acres, and the situation is fairly flat, the elevation being only from 250 to 350 ft.

Much good work is being done on this property, although it cannot be said that full advantage is being taken of the knowledge which might be gained from previous experience.

Some very interesting plots of conifers were inspected in a portion of the "Chester Plantation." One section of 5 acres, stocked with pure Corsican pine, was established in 1910 by sowing 4 lb. of seed per acre, in lines formed with a rake at 3 ft. apart. The ground had previously carried a crop of Scots pine, the stumps of which were removed and the whole surface harrowed before the seed was sown. The cost of the whole work, including sowing, was 10*l.* per acre, most of this expenditure being incurred in the preparation of the soil. It is estimated that there are now 120,000 plants on the ground, in addition to large numbers which have been lifted from time to time and taken to the nursery. The plants are exceedingly vigorous and healthy, and it will be interesting to watch the future development of this plot.

An adjoining area, 2 acres in extent, treated in the same way, had been sown with Scots pine seed, and the plants taken out in thinning had been used for restocking another adjoining plot of 5 acres. The former are now from a foot to 18 in. higher than the trees which had been transplanted. Another interesting plot here is carrying a crop of Banks' pine. It is 2 acres in extent, and was formed in 1907 by planting, the trees being obtained from a Continental source. Near this was a compartment of natural Scots pine 30 years old and from 30 to 40 ft. high. There was a full crop on the ground, which gave promise of producing much fine timber.

HOME NURSERIES COMPETITION.

The total number of entries in the three classes for nurseries was seven, a smaller number than might have been expected, considering the very large entry of plantations and estates, and with the exception of two those entered were rather disappointing.

CLASS I. FOR THE BEST MANAGED GENERAL HOME NURSERY NOT LESS THAN 1 ACRE, brought out three entries, and the Judges had no hesitation in awarding the first prize to Captain Heywood-Lonsdale for his conifer nursery at Pres Heath.

This was fully stocked with fine, healthy, well-rooted plants, mostly raised from seed in the nursery, and the seed beds this year were looking very well and promising to yield a quantity of useful young stuff. Formed in 1911, and apparently worked on economical lines, this nursery was shown in first class condition. No space was taken up with ornamental plants, the whole available land was under useful forest trees to the number, of all classes, of nearly 250,000; a considerable proportion was Corsican pine, with which there appeared to have been practically no losses in transplanting.

The second prize was gained by Lord Harlech, Brogyntyn, or a nursery extending to 2 acres, lying at an altitude of 60 ft. with a north-east exposure.

This nursery contains a large number of trees of a variety of species, mainly bought in as seedlings, though there is a considerable area taken up with seed beds this year. The land is very clean, and the nursery is obviously well kept. There appeared to be a shortage of trees for planting out in the coming season, and some had been transplanted last spring which hardly seemed to have required it. Additional expense had, therefore, been incurred, which might have been avoided. Part of the ground was under potatoes in order to clean and manure the land.

There was a fine collection of flowering shrubs from Western China, which were doing very well.

CLASS II., LIMITED TO NURSERIES OF LESS THAN 1 ACRE IN EXTENT. The first prize here was awarded to Sir H. W. A. Ripley for a most interesting nursery at Bedstone. Formerly the site of an old garden, this nursery lies in the bottom of a small valley, at an altitude of 600 ft., and the aspect is north to east.

It contains, in addition to the ordinary nursery stock, a large and interesting collection of transplants of the rarer conifers, which are to be used for ornamental purposes and for forming experimental groups in different parts of the woods. Owing to the situation, which is practically a "frost hole," several species, notably the silver fir and sweet chestnut, had suffered severely from damage by frost this spring, and even into the early summer. Notwithstanding this, there is a good stock of fine, healthy material, carefully lined out, at suitable distances, but no seed beds were noticed.

Part of the ground is cropped with potatoes to ensure the land being thoroughly cultivated and cleaned.

The second prize was awarded to Sir R. Greene-Price, Bleddfa, for a nursery of $\frac{1}{2}$ an acre, on light soil, at an altitude of 500 ft. The situation is a steep slope, with a south-west aspect, and the plants, it was evident, are liable to suffer considerably from drought, as was seen by the seedlings lined out this spring. There was some useful material ready to get out into the woods, the only fault to be found being that many of the trees are allowed to stand too long in the nursery lines. This adds considerably to the cost of transport and planting, besides, large trees take a much longer time to become established than smaller, and the chances of success are considerably lower.

CLASS III., FOR A TEMPORARY FOREST NURSERY. There was only one entry in this class, and it was awarded a second prize. It is on the estate of Mr. T. J. Mytton More, Linley, Shropshire, and has only recently been formed. It is carrying its first stock of trees, to the number of about 90,000, which were purchased as seedlings from public nurseries in this country. Although they were being watered, the plants were suffering from drought. The situation is dry and very much exposed to the sun and drying winds. These adverse conditions may to some extent be overcome as shelter is established, but it was thought that a more favourable site might have been obtained.

CONCLUDING REMARKS.

It appears to be worth recording that in the whole district visited—on all soils and at all elevations—the outstanding tree is beech. Everywhere splendid specimens were seen, sometimes as single trees and again forming large groups, and it is to be regretted, from every point of view, that little or none is being included in the species used in so many of the young woods now being formed. It was often put forward as a reason for not planting this species, that it is of practically no value as a timber tree, but it has already been pointed out that, on at least one estate, 1s. 2d. per cubic foot has been realised for well-grown stems, and there is a demand for more of the same quality. It should also be borne in mind that the volume of beech produced per acre is very large.

On a certain amount of land at comparatively low elevations and on soils more suited to the successful growth of hardwoods, there appears to be a disposition to plant only conifers, which, perhaps, is not to be encouraged. Judging from the results seen in some parts of the district, it would appear that the successful growing of hardwoods has become almost a "lost art."

Another feature of general interest noted was the fact that almost all the best woods containing a large proportion of larch were situated on a slope having a northern aspect, and the trees had been set out at a wider distance than is usually found to be the case: 5 and even 6 ft. spacing was found to give very satisfactory results in the case of the larch woods, and in addition there was a considerable saving in plants and planting.

The Judges take this opportunity of expressing their indebtedness to the Secretary, and also to the Chairman of the Forestry Committee, for the arrangements made by them, which worked throughout without a hitch. They also desire to thank the owners of the many estates visited for the trouble they took in conveying them to the various woods inspected, and to the agents and foresters who showed them round and gave them all information relating to the entries.

W. B. HAVELOCK.
J. McLAREN.

THE FARM PRIZE COMPETITIONS.

For the third time the county of Shropshire has been the centre of the Society's farm prize competitions. These competitions owed their origin to the initiative of the late Mr. James Mason,¹ of Eynsham Hall, near Witney, Oxon., who offered a hundred-guinea cup for the best managed farm within a district which comprised, approximately, the counties of Oxfordshire, Buckinghamshire, and a small part of Berkshire, in the year 1870. The prize was offered in connection with the Oxford Meeting of the Society, and the Council undertook to settle the conditions of the competition, and also to provide a second prize of 50*l.* Twenty-one farmers competed, and so obvious was the utility of the venture, that in connection with the Wolverhampton Meeting in the following year, the landowners of Shropshire and Staffordshire subscribed two first prizes of 100*l.* each for the best arable and the best dairy farm, whilst the Society provided second prizes of 50*l.* in each case. Local subscribers raised a further 50*l.* to be placed at the disposal of the Judges, to reward any special feature of excellence in the management of any of the competing farms. The Society framed the conditions of the competition, and bore all expenses. Again the competition was a great success, no fewer than twenty-three entries being made in the arable class, whilst the number of those in the dairy class is not recorded.

¹For an account of Mr. Mason's farming experiments, see *Journal R.A.S.E.*, Vol. 65, page 106.

By the time of the Shrewsbury Meeting in 1884, the popularity of these competitions was well established. Prizes were offered by the local committee for arable farms, dairy farms, and for small farms of either character, within the counties of Shropshire, Staffordshire, and Herefordshire. Once more the entries were good, numbering twenty-one in all, and a very interesting feature of this competition is the fact that the winner in the dairy class was to figure again very prominently in the prize list when the Society re-visited Shrewsbury thirty years later, on which occasion he also had the satisfaction of seeing his own son amongst the prize winners. To win two prizes in the Society's farm competitions is a very rare achievement; for a father and son to figure in the same winning list is probably unique, and constitutes a record of which both may very deservedly be proud.

The farm prize competitions, held in connection with the Shrewsbury Meeting this year (1914), were restricted to farmers within the three counties of Montgomeryshire, Shropshire, and Staffordshire. Within their boundaries almost every variety of condition under which farming is carried on in the country is to be met with. On the eastern side Staffordshire, dotted as it is with great hives of industry, supplies the farmer with the best of markets at his very door. Nevertheless in the centre of the county is a tract of about 1,000 acres of land which has never known the hand of man, where an interesting experiment in land reclamation is being carried on at the present moment. Chartley is famous as having been for so many years the home of one of the herds of wild White Cattle, and though the disappearance of these animals may be regretted on historical and sentimental grounds, the land over which they ranged can be put to a better use. The great midland dairying district includes a part of Staffordshire on its eastern side, and much milk is produced for the big towns; for the rest, the character of the farming is of a varied nature, largely influenced by the proximity of excellent markets. There is much that is beautiful in the scenery of the county, but one cannot escape for long from the disfiguring chimneys and spoil-heaps which mark the progress of industry. In motoring through the district, however, it is interesting to notice the progress which is being made in planting up the great heaps of pit rubbish, and a full account of this work will be found in another part of this volume.¹ Passing westwards into Shropshire and thence into Montgomeryshire, one traverses the great undulating plain through which the river Severn flows, and of which Shrewsbury is approximately the centre, a region more remote from

¹ See page 70.

industry, though well able to benefit from its demands, which has been described as one of the most highly farmed districts of England, producing magnificent barley and root crops. To the north, on the Cheshire border, dairy-farming prevails, whilst southwards lies the hill-country of Shropshire, the Cleve Hills, Wenlock Edge, the Longmynd, which passes insensibly by Clun Forest on to Kerry Hill and the mountainous parts of Montgomeryshire. Here are large tracts of country rising to an elevation of some 1800 feet, almost entirely given up to grazing; a country sparsely populated, remote from markets, and without means of communication with the rest of the world other than those afforded by its own hilly roads. Shropshire, and particularly Shrewsbury, is noted for the excellence of its live-stock markets, and this is largely due to the fact that it forms the natural focus of the great breeding districts within its border and in the country to the westward of it.¹

To classify the holdings within an area so diversified as this, in such a way that farmers might participate in a farm competition under uniform conditions, was no easy matter, and it is satisfactory to note that a division into arable farms and dairy farms, the need of which was much felt in the competition of 1913, was made. Prizes were offered in four classes, namely, for large and small grazing and dairy farms, and for large and small arable farms. In each of the large farm classes there were thirteen entries, with five entries in the small dairy or grazing class, and six in the small arable class, a total of thirty-seven entries, being five in excess of those of last year. The list of competitors will be found on pp. 202-205.

Whereas it was noted last year that all the farms entered for competition were held on yearly tenancies, three entries of farms held on lease were made this year, one being for seven years, one for fourteen years, and the third for twenty-one years. The experience of farmers during the early years of the great depression dealt a death blow at leasehold tenure in the great majority of places, and it will be of interest to note whether the improvement in agricultural prices will revive the demand amongst farmers for leases. There is much to be said for this form of tenure, in that by it the farmer has greater security, and may be the more willing to embark upon the improvement of his holding. It is interesting to note that one competitor, a winner of a first prize, is also the owner of his holding.

The instructions issued to the Judges were the same as those of last year.

¹ An article descriptive of the stock markets of Shropshire was to have accompanied this Report, but its author was impelled to respond to the Nation's call to arms before the work could be completed. Ed.

Name of Competitor	Name of Landlord	Extent of Farm		Rent per Acre	Labour per Acre	Soil	Tenancy	Remarks
		Arable Acres	Total Grass Acres					
CLASS I. GRAZING OR DAIRY FARM, 150 acres or over (exclusive of Sheep Run), of which two-thirds must be permanent grass.								
1. William Everall, Forton, Montford Bridge, Shrews- bury	The Earl of Powis	130	278	18s. 10d.	17s. 9d.	Gravel and loam	Yearly	1st Prize
2. John Stephen Funnell, Snedley Farm, Muckle- stone, Market Drayton	The Marquis of Crewe	135.5	194	17. 14s. 6d.	22s. 9d.	Red loam	Yearly	Reserve
3. Thomas Jones, Weston House, Brocton, Much Wenlock, Shropshire	Lord Barnard	92	244	15s. 6d.	17s. 3d.	Strong clay loam	Yearly	
4. Thomas Maurice Jones, Park Farm, Rowton, Halfway House, Shrews- bury	Lieut. - Col. Noel Armar Lowry- Corry, D.S.O.	80	168	27. 1s. 7d.	16s. 1d.	Light	Yearly	
5. George Percy Mead, The Woodlands, Becton, Shrews- bury	C. E. Morris-Eyton, Esq.	—	150	27. 1s. 4d.	63s. 4d.	Strong loam	Yearly	
6. Samuel Minshall, Wil- loughby, Newport, Shrop- shire	Sir Robert Boughcy	112	268	17. 4s. 10d.	26s. 3d.	Light loam	Yearly	
7. William Henry Morris, West House, Chirbury, Shropshire	The Earl of Powis	94	198	17. 9s. 3d.	20s. 3d.	Variable	Yearly	
8. George Moscey, Trench Farm, Wen, Shropshire	Col. Eckersley	70	190	17. 10s. 4d.	19s. 3d.	Very strong	Yearly	
9. Thomas Belton Nuttall, The Peemans, Whit- church, Shropshire	Capt. Heywood Lonsdale	144	297	17. 3s. 1d.	34s. 6d.	Glacial drift, variable	Yearly	2nd Prize

Name of Competitor	Name of Landlord	Extent of Farm		Rent per Acre	Labour per Acre	Soil	Yearly	2nd Prize
		Arable Acres	Grass Acres					
10. William Nunnerley, Ken- wick, Ellesmere, Shrop- shire	The Earl Brownlow	238	508	12. 10s. 10d.	25s. 7d.	Glacial drift, good loam, some strong, some light Variable	Yearly	2nd Prize
11. Thomas Parker, Balderton, Myddle, Shrewsbury	Frank Bibby, Esq.	86½	238	17. 11s.	19s.	Strong	Yearly	Highly Commended
12. Alfred Williams, Wood Farm, Hadnall, Shrews- bury	Frank Bibby, Esq.	—	154	22. 2s. 2d.	15s. 6d.	Strong	Yearly	Highly Commended
13. John T. Wythall, Rolles- ton Park, Tutbury, Bur- ton-on-Trent	Oswald Mosley, Esq.	88 ^{acres}	316	12. 9s. 8d.	9s. 10d.	Strong red soil	Yearly	Highly Commended
CLASS II. GRAZING OR DAIRY FARM, not less than 50 acres, and under 150 acres (exclusive of Sheep Run), of which two-thirds must be permanent grass.								
14. William Bevan, Court Farm, Asford Carbonell, Ludlow, Shrop.	Major E. H. Camp- bell	6	51	27. 2s. 1d.	34s. 4d.	Clay	Yearly	1st Prize
15. Thomas Evans, Dyffryn, Beauris, Welshpool	A. E. O. Humphrey- Owen, Esq.	30	54	12. 18s. 2d.	—	Light variable gravel Loam	Yearly	2nd Prize
16. John Minton, Bockley, Shrewsbury	The Earl of Powis.	—	97	17. 5s. 8d.	11s. 4d.	Rather heavy	Yearly	3rd Prize
17. James Owen, Cockshutt Farm, Montgomery.	Major Wilding	18	57	17. 7s. 8d.	6s. 8d.	Medium	Yearly	3rd Prize
18. George Warren, Hilly Lees Farm, Heaton, near Macclesfield	Sir P. L. Brockle- hurst, Bart.	—	105	17. 6s. 8d.	—	Medium	Yearly	3rd Prize

Name of Competitor.	Name of Landlord	Extent of Farm			Rent per Acre	Labour Bill per Acre	Soil	Tenancy	Remarks
		Arable Acres	Grass Acres	Total Acres					
III. FARM, CHIEFLY ARABLE, 150 ACRES OR OVER (exclusive of Sheep Run).									
19. J. Morris Becher, Thiberton Manor, Newport, Shropshire.	Sir P. L. Chetwode, Bart., and the Marquis of Crewe	298	182	480	17. 14s. 28s. 6d. estimated	—	Various	—	1st Prize
20. John Edward Bourne, Oakley Hall Farm, Market Drayton	Sir P. L. Chetwode, Bart., and the Marquis of Crewe	223	254	485	21. 6s.	37s. 6d.	Sandy loam, clay, and gravel	14 years and yearly	2nd Prize
21. Edward Bowdler, Lower Farm, Carlisleton, Shropshire	Sir Brian Leigh-ton, Bart.	200	23	223	11. 5s.	46s. 9d.	Mixed	Yearly	Yearly
22. Richard Everall, Euston House, Montford Bridge, Shropshire	The Earl of Powis.	340	180	520	17. 19s. 8d.	29s.	Gravel, sandy loam and sand	Yearly	Highly Commended
23. Harry Foden, Booth's Farm, Hamstead, near Birmingham	Lord Cathorpe	147	87	234	—	—	—	21 years	—
24. Thomas Frank, Cound Arbour, Shrewsbury	A. C. MacCormac, Esq., and Sir Raymond Tyrrwhitt-Wilson, Bart.	360	368	728	17. 10s. 9d. 27s. 1d.	—	Sand and gravel, stony, heavy land	Yearly	Very Highly Commended
25. John D. Lee, Audley's Cross, Market Drayton	Sir P. L. Chetwode, Bart.	163	59	222	17. 3s. 6d. 4s. 2d.	—	Light	Yearly	Reserve.
27. Thomas Stephen Minton, Montford, Shrewsbury	The Earl of Powis.	236	334	570	17. 10s. 2d.	28s.	Sandy and light loam	Yearly	Highly Commended
28. Oswald W. Nicklin, The Rectory, Oulton Magna, near Shrewsbury	Hugh D. Corbett, Esq.	150	85	235	17. 15s. 3d. 28s. 8d.	—	Variable	Yearly	Very Highly Commended

Name of Competitor	Name of Landlord	Extent of Farm			Rent per Acre	Labour Bill per Acre	Soil	Tenancy	Remarks
		Arable Acres	Grass Acres	Total Acres					
29. R. Preece & Son, Cressage House, Cressage, near Shrewsbury	Lord Barnard	204	245	449	17. 4s. 9d.	15s. 7d.	Sand, gravel and clay	Yearly	3rd Prize
30. William Henry Snodson, Walsley Farm, Walsley, Stourbridge	W. H. Foster, Esq., and the Rev. A. J. Hill	137	18	155	—	—	—	Yearly	—
31. Thomas Wainwright, The Crowreaves, Bridgnorth, Shropshire	W. H. Foster, Esq.	233	217	500	17. 1s. 2d.	33s. 2d.	Light	Yearly	—
CLASS IV. FARM, not less than 50 acres and under 150 acres (exclusive of Sheep Run).									
32. Peter Crow, Manor Farm, Trysull, near Wolverhampton	Mrs. Howard Mansder	100	29	129	17. 6s.	37s.	Medium	Yearly	2nd Prize
33. Mrs. Sarah Ellen Gibbs, Manor Farm, Upton	Hugh Corbet, Esq.	89	48	137	17. 18s. 3d.	30s. 7d.	Mixed	Yearly	Reserve
34. Wilmot Jackson, Manor House Farm, Abbots Bromley, near Rugby, Staffs.	T. S. Myatt, Esq.	41½	58	99½	27. 2s. 6d.	30s. 9d.	Medium soil	7 years	1st Prize
35. Richard Brian Marsb, Holloway, Craven Arms, Shropshire	Henry John Beckwith, Esq.	82	54	136	17. 4s. 6d.	18s.	Medium, light loam	Yearly	3rd Prize
36. Richard Parry, Nobold Hall, near Shrewsbury	Samuel Atherton, Esq.	38	40	78	—	—	Gravel	—	—
37. Peter Trevor, Lodge Farm, Hopton, Holnet, Shropshire	Mrs. Hayes	95	35	130	17.	6s.	Light soil	—	Highly Commended

GRAZING OR DAIRY FARMS.

CLASS I.—150 acres or over.

There were thirteen entries in this class, twelve of them being from Shropshire and one from Staffordshire. The Judges awarded the first prize to Mr. William Everall, of Foston, Monford Bridge, Salop. The farm lies very conveniently just off the Shrewsbury and Oswestry main road, about six miles from the former town and fifteen miles from the latter, but Mr. Everall has also some accommodation land nearer to Shrewsbury held in connection with another enterprise.

The farm lies practically in a bend of the river Severn, in one of the most fertile districts of England; it is about 408 acres in extent, 278 acres being permanent pasture. The soil varies from gravel and sand on a gravel sub-soil in the upper part, to a stronger soil, loam overlying clay, nearer to the river. The farm lies well for working, and a high road which intersects the arable land is a great convenience in carting to and from the homestead. The farm-house is pleasantly situated and commodious, with the farm buildings to the rear. These are for the most part old and badly planned, but they have been adapted in a wonderful way, by the skill and application of the tenant, to serve his purposes. The horse-mixen has been turned into a covered shed, and cattle are fattened in it over the horse litter. Not only does this lead to an economy of straw, but a part of the equipment, which becomes, during winter, nothing more nor less than a filthy pond on so many holdings, is turned to profitable account. To save time and labour in feeding a tramway has been put down, communicating from the food-stores and mixing floors with the various livestock sheds, but perhaps the most notable improvement by the tenant is the installation of the electric light. A dynamo, &c., has been fixed up in a corner of the barn, run by an oil engine, and the current is used for lighting the stables, cowsheds, food-stores, and so forth, as well as for the farm-house. The plant is in the charge of one of Mr. Everall's farm hands, who learned how to run it after a few days' instruction from the firm who installed it. It typifies at once the vigorous management of the tenant, willing to go to a considerable outlay to bring every department of his enterprise to the maximum of efficiency, the readiness with which the farm labourer, given the opportunity, can qualify himself for highly responsible work and consequently for higher wages, and lastly, but by no means least, the admirable sense of security and confidence which must exist on an estate where a tenant will bear the expense of a work of such magnitude upon the security of a yearly agreement.

Mr. Everall follows a five-course rotation. On the stronger land on the low side of the farm roots are followed by barley, seed, wheat, and barley; on the gravel and sand on the upper side barley follows the seeds, and oats come after the second barley crop. Thus, two straw crops follow the clover. No catch cropping is practised as part of the system of management, but after an early harvest rape and mustard are sown on the stubbles, and eaten off with sheep. The cropping for this year was:—

32	acres roots after wheat and barley
34	" barley after roots, seeds, and wheat
34	" seeds after barley
12	" wheat after seeds
17	" oats after barley.
129	

Also 7 acres potatoes after oats on an old turf recently broken up.

One of the Judges described the management of the arable land as perfect. The root land was absolutely clean on the occasion of the last visit.¹ There was a particularly fine piece of mangolds with hardly a miss, and the plants large and true to type. Mr. Everall's system of manuring for them is 10 tons of farmyard manure ploughed in 9 in. deep by the end of January; at the time of sowing he applies 8 cwt. per acre of the following mixture:—4 tons superphosphate, 4 tons bone meal, 5 tons kainit, 2 tons sulphate of ammonia; immediately after singling, the plants are top-dressed with 7 cwt. ground rock salt and 1 cwt. nitrate of soda per acre. For swedes, 8 tons of farmyard manure, and 6 cwt. of the foregoing mixture are applied. The potatoes were very good indeed, and it was particularly interesting to learn that the crop came after two oat crops following old grass. This particular field did not lie well for grazing, which was the only reason for breaking it up, but the wonderful potato crop suggested the reflection that the land might conceivably be more profitable under the plough.

The corn crops were magnificent, and Mr. Everall has since informed the writer that he has *delivered* 8 quarters of wheat, and $7\frac{1}{2}$ quarters of barley, per acre, exclusive of the tail corn. The second straw crop receives 5 cwt. per acre of the following mixture:—1 ton sulphate of ammonia, 2 tons kainit, and 4 tons superphosphate or bone-meal. Some of the barley which had had sulphate of ammonia seemed to be ripening somewhat unevenly, though a tremendous crop, and its appearance rather suggested that the nitrogenous manure might be omitted. Mr. Everall's pastures were very much better grazed than the average of the district. It was particularly noted in passing

¹ Most of these notes refer to the appearance of the holdings in June and July.

about the county that fog-grass and similar weeds were apt to dominate the grazing, and these were conspicuously absent at Forton. The lighter pastures are dressed with 4 cwt. slag and 4 cwt. kainit once in four years, whilst on the bottom meadows it is the custom to apply 8 cwt. slag and no kainit. There was a pasture newly laid down to take the place of the field broken up, which hardly seemed to be up to the high standard of success achieved on the rest of the holding, but the explanation was difficult to find. The tenant has constructed some admirable concrete drinking places in some of the pasture fields, feeding them with land drains, and the advantages of such an arrangement over the dirty, trodden up places so commonly encountered need no emphasis.

Coming to the live-stock, the Judges commented specially on the excellence of the shire horses. Mr. Everall showed a beautiful lot of shire mares, foals, and young stock; four young geldings bred on the farm looked good enough for any work, either on the land or on the streets. There was a dairy herd for milk selling of about thirty Shorthorn cows and heifers in milk, which is being built up both through the bull and with the assistance of milk records. The cows are nearly all home-bred, and records of all the milk yields are kept. A famous Cranford-Waterloo bull, a rich red, was running with them, and with this management the herd would be eligible for the herd book after four years, whilst all the young stock would have milk pedigrees in addition. The bull is as full of milking blood as possible, yet equally as capable of getting beef stock as many bulls kept where the rearing of stores is the only consideration. It was noteworthy that though so keen about pedigree, Mr. Everall was not afraid to poll his cows to prevent injury to themselves. On these good pastures the cows are not cake fed until September, and the maximum ration in the winter is 3 lb. decorticated cotton cake and 2 lb. maize meal. Heifer calves are saved only from the best milkers. The steers are bought in; there was a grand lot of Hereford-Shorthorn cross-breeds, and these were doing very well on the lower fields. Many of them were put on the grass in mid-April, and went out fat after three months' grazing. There was also a wonderful run of well-bred Hereford heifers, bought as barren, many of which proved in-calf; this seems only explainable on the assumption that they were sold from fear of abortion. Only the bullocks are allowed cake on the grass. About forty bullocks are fed in stalls in the winter, and these get about 2 lb. decorticated cotton or linseed cake, and 4 lb. maize meal.

Mr. Everall maintains a registered Shropshire flock of about 120 ewes; the best ram lambs are sold for stock as yearlings, whilst the rest are wintered on roots and sold fat in March.

The sheep are characteristic of the whole of the live-stock on the farm, in that they are thoroughly workmanlike and good. Pigs do not form an important branch of the management, but some useful sows were to be seen in the yards.

Mention must be made of the system of book-keeping on this farm. Mr. Everall is one of the few men who recognise the extent to which a properly devised system of accounting can aid in the management of the farm. He has introduced a set of departmental, or cost accounts, by which he is able to form an accurate idea of the financial results of the various branches of his farming, and thus to direct his future policy. Further reference to this subject is made later, and it will suffice to say here that the audited balance sheet compiled from records carefully kept throughout the year marks a standard of achievement to which few farmers attain.

Mr. Everall is well known far beyond the district in which he lives as a man of many activities, and the success with which he was rewarded in this competition is another proof of the fact that it is often the busiest men who find the most time to do things well.

The second prize in this class was awarded to Mr. William Nunnerley, of Kenwick, Ellesmere, and Belton, Whitechurch, both in the County of Shropshire. The principal farm, Kenwick, is situated on the Shrewsbury-Wrexham road, about thirteen miles north of Shrewsbury, three-and-a-half miles south of Ellesmere, nine miles east of Oswestry, and six miles west of Wem. Belton lies some nine miles north-east of Kenwick, being distant one-and-a-half miles from Whitechurch. The soil is very variable, some strong, some light, with a certain amount of gravel and peat. The farm-house and homestead at Kenwick are situated at the top of a sharp hill, the house, which is very commodious, commanding magnificent views. The farm buildings are well planned on the whole, though possibly some would desire to see them removed a little further from the dwelling house. The cow houses stand very low and Mr. Nunnerley complains that they are dirty, a fact that was remarked on several other holdings during the inspection of the prize farms, but there was a very good arrangement of a food-supply channel from feeding passage to manger. Some of the yards were open to the criticism that they run down hill; they would be wet under the sheds, whilst at the same time plenty of the liquid was running down hill out of the gates to be wasted. The large yards, with cobbled road-way round and huge mizen in the middle, would appear to be wasteful of ammonia, but it is the common arrangement of the district, though it has been noted that the winner of the first prize in this class had

very much improved upon it. As regards the pigstyes, Mr. Nunnerley finds that the pigs in those facing south do better than the ones in those facing north, though the latter do quite well. Many improvements have been effected by the tenant, notably the erection of some Dutch barns, and some useful sheds and feeding boxes for stock. A large number of fruit trees both at Kenwick and at Belton have been planted by him.

Mr. Nunnerley's rotation is the usual four course, *i.e.*, roots, barley or oats, seeds, barley or wheat. No catch cropping is practised. The arable land extends to about 237 acres, and it was cropped this year as follows:—

55	acres	roots
82	"	barley
80	"	seed
20	"	oats
<hr/>		
237		

This plough land was in excellent condition, and many purely arable farmers might well take it as an example. Mr. Nunnerley is always careful to alternate his mangolds and swedes, so that swedes do not follow swedes except after an eight-year interval, thus giving "finger and toe" less chance of infecting the land. For mangolds 15 tons of farmyard manure are ploughed in in autumn, and 5 cwt. kainit and the same quantity of bone-meal are applied in the early spring; the swedes get 12 tons of farmyard manure and 4 cwt. each of kainit and bone-meal. Land for roots is grubbed immediately after harvest, *i.e.*, cultivated three horses abreast with a strong cultivator, well harrowed, and if necessary forked clean; then for mangolds 15 to 18 tons, for swedes 12 to 15 tons, of farmyard manure is ploughed in during winter. Five cwt. kainit is applied in early spring and 5 cwt. of some special manure when ridging for sowing; this leaves the land in good form for barley and seeds to follow. The barley before harvest promised an excellent yield. The grass land extends to some 508 acres, and here Mr. Nunnerley has been to some considerable expense in re-planning the fields, many chains of old and tortuous fences having been grubbed, and new ones planted. In common with many other farmers of this district he likes huge fields of about 100 acres; these are sometimes necessary where drinking places are difficult to provide, but this was not the case at Kenwick. These huge fields prevent level grazing, the cattle leave anything coarse until they are forced to eat it, and the result is that strong coarse grass and weeds keep getting more and more the upper hand by seedling, and gradually the sward is spoilt. There was some evidence of this on Mr. Nunnerley's farm, notably fog, but it is a hundred times worse on other farms in the district.

Mr. Nunnerley's custom of cutting the creeping thistle in July will not commend itself to many people as the best method of eradicating this pestilential weed. As regards manuring, the meadow land receives, when possible, about 10 tons of farmyard manure, together with 5 cwt. of bone-meal or kainit. The pasture receives 5 cwt. of steamed bones every fourth year.

As regards the live-stock, the Judges remarked upon the exceptional quality of the horses, both workers and young ones. Mr. Nunnerley keeps a large herd (nearly 200) of milking cows of the Shorthorn type. The main object is the manufacture of cheese, but the tenant makes a great point of keeping a *young* herd, which enables him to sell out a great quantity of down-calvers to the suburban farmers who sell warm milk in the big industrial centres. To combine this with cheese making is unusual, but certainly ingenious, for it joins a profitable branch of dairy work with what is the most profitable form of stock raising at the present time, for nothing pays better to grow just now than large milking cows carrying a good carcass. It is a very great pity that no milk records are kept, for if Mr. Nunnerley is correct in estimating the average yield per cow at over 700 gallons he has certainly solved the problem of how to establish a dual-purpose herd, for he showed two very fine home-bred steers, thick-fleshed and excellent butcher's animals, and his walls displayed many prize cards for home-bred steers exhibited at the local shows. With the cows was running a very beautiful Norbury-bred bull of the famous Winsome tribe, but there seemed some risk in using him in the absence of milk records on his mother's side, for this pedigree contains a lot of Scotch blood, which is very often destructive in a dairy herd. But the bull had no exaggerated beef points, and was only bought because his dam had a reputation (not a record) for milk.

The calves only get new milk for a month and then go on to whey and milk substitutes. This shortage of new milk is reflected in their condition, for they look very poor when young, but as soon as they are weaned the good grass of the district seems to enable them to grow out and put on a bloom. They are dressed three times in the hot months with McDougal's smear to stop galling, and in the rare event of the appearance of a warble the same remedy is applied.

Mr. Nunnerley makes cheese all the year round, for he finds that by use of a starter, and care in the making, cheese made from cattle fed on hay, cake, and roots in the sheds, gives every satisfaction to his customers. These are the Co-operative Wholesale Society, of Manchester, to whom the cheese are delivered by lorry, an excellent mode of transport for this class

of produce. The output of the two farms is some twenty-two tons per annum.

The sheep are pedigree Shropshires. Mr. Nunnerley is a ram breeder, and showed a nice lot of ram lambs. Here and on other farms the tendency to a darker face was noticeable, due possibly to the fact that so many rams are wanted for breeding fat lambs, and the butchers much prefer the dark face and leg.

Quite a feature is made of the pigs on this holding. Large whites are kept, and a lot of pigs are bred for the consumption of the whey. This is mixed with sharps and a little maize; about 200 are fed until they are likely to weigh about 11 score dead weight, when they go away to Burton-on-Trent for conversion into mild-cured bacon. These pigs are larger and thicker than the Wiltshire curers would appreciate, but they give every satisfaction in Burton, for Mr. Nunnerley has sold to the same firm for many years.

Mr. Nunnerley is the competitor already referred to as having won a first prize in the competition of 1884. His success this year must be very gratifying to him and his friends, though it is probable that the success of his son, Mr. Thomas Belton Nunnerley, who was awarded the third prize in this class, has afforded him even deeper satisfaction. Mr. Thomas Nunnerley's farm is situated at the Twemlows, near Whitechurch, from which radiate the roads to Warrington, Chester, Wrexham, Newport, and Nantwich. The house and buildings lie some way back from the road, the former very pleasantly situated and commodious, but the latter covering a lot of ground and not very convenient for feeding. The farm consists of about 144 acres of arable land with nearly 300 of grass, and the four-course rotation is followed. The cropping this year was :—

37	acres	roots
50	"	barley
36	"	clover
18	"	oats
141		

The barley was late sown, and though coming thick it appeared a little patchy and had been rather punished by hares.

Mr. Nunnerley shows great concern about his seeding, and the whole of his arable farming seemed clean and good. As regards the grass land, he aims at giving the meadows about 10 tons of farmyard manure, or, failing that, 5 cwt. of bone meal or kainit: the pastures receive 5 cwt. of bone meal every fourth year, with farmyard manure whenever there is any to spare. One of the pastures was particularly interesting in that it was composed of two fields, one old pasture and the other newly laid down, the two being grazed together. Whilst the old pasture was full

of cuts, largely consisting of Yorkshire fog, the new grass was eaten off almost too close, which seems to afford evidence against Mr. Nunnerley, Senr.'s, opinion that large pastures are advantageous. In this case had the fence been left both pieces of grass could have been better grazed. The large night pasture and all other grass was much better grazed than is usual in the district, but one field distinctly showed signs of the bad effect of mowing and grazing in alternate years. With regard to the live-stock, Mr. Nunnerley has nearly 120 cows, mostly home-bred. These were very good, and some splendid old foundation cows were being fed off (July), from which nearly all the herd were descended; the calves looked as promising as the young cows and heifers. The bulls running with the cows seemed hardly up to their quality, but Mr. Nunnerley selects them on the reputation of their mothers as milkers, and whilst this is good, it may be remarked once more that a record is better than a reputation. All the milk is made into cheese, and some 200 pigs are fed to consume the whey. Most of these are bought locally, and their quality is a striking testimony to the excellence of the pigs bred in the district. The fat pigs go to the same market as those of Mr. Nunnerley, Senr. The cheese room was old-fashioned, but fitted with modern appliances, and all was very workmanlike and scrupulously clean. The cheese seemed thoroughly well made, and the home-made butter was certainly excellent. It is worthy of note that both father and son are firm believers in the virtue of a large plaster of cow-dung across the loins as a treatment for "garget." It is almost incredible that this can be otherwise than an ancient and a dirty superstition dating back to the days when a preparation from the bowels of a black cat killed when the moon was full was regarded as a certain cure for toothache, but it is always possible that there is something in these practices, such as warmth, or action as a counter-irritant, which does cause them to give some real relief, although the advantage could doubtless be realised more fully and advantageously in other ways.

The sheep were just a good, useful flock of Shropshires, but the Judges remarked that the horses were exceptionally good. The tenant is willing to bear his share of the cost of permanent improvements, and a new fence, young quicks between wires, planted by him, seemed particularly well cared for. In a word, the whole farming and management may be described as thoroughly good and resourceful.

CLASS II.—Not less than 50 acres, and under 150 acres.

In this class, for small grazing or dairy farms, there were five competitors, two in Shropshire, two in Montgomery, and

one in Staffordshire. The Judges awarded the first prize to Mr. Thomas Evans, of Dyffryn, Berriew, Welshpool. This holding lies in the Severn valley on the road from Welshpool to Newtown and Llanidloes. It is situated about six miles south of Welshpool, and rather a shorter distance north-west of Montgomery. It consists of 30 acres of arable land, and 54 acres of grass, and the soil is entirely river gravel. The farm house is new, but the buildings are rather old, and might, with advantage, have been placed more centrally. The home-stead is rather far from a good road. The arable land is cropped on a five-course rotation, oats and wheat following the seeds. The whole of it was very clean. This was particularly striking in a field of seeds which had been grazed till June, and was then laid in for seed. It was a very good mixture of red clover and various grasses, and it was not surprising to hear from Mr. Evans that he always had a great demand for seed from leys so treated. There was a very even piece of wheat, which was as heavy as could be expected, seeing that it was after barley, and the advantage of placing wheat thus in the rotation is not evident. He had a tremendous crop of barley, but the seed must have been very impure, and it was badly laid, which makes one wonder all the more why he did not take barley after wheat, instead of wheat after barley. He is singular in that he ploughs twice for wheat, cultivating in between the two ploughings, and though there is a market for his wheat straw at 4*l.* per ton, he prefers to use it at home for his stock. The root crops were just good, and it is possible that on this rather steeley land the kainit is applied too late. Two pieces of potatoes, the one from new seed and the other from his own, showed very markedly the importance of a change of seed. There was a very fine piece of oats growing for seed, but Mr. Evans was not able to say what variety it was.

The pastures were very well grazed, particularly the home paddock, and there were comparatively few of the ugly tufts, of which so many were apparent in the Shropshire pastures. The meadow lands showed signs of the need for drainage, yellow rattle and black grass being in evidence. It also showed signs of having had too much nitrogenous manure (farmyard) even for a meadow. A lot of the grass was still uncut, and all the Yorkshire fog was seedling.

The Judges remarked upon the quality of the horses. There were two very fine brood mares with two particularly fine foals, and a pair of two-year-olds, equally good, also the progeny of the two mares, had just been turned off to grass (July) after their first season's work. It seems common in this district to find young horses at work on their second birthday, and certainly these two looked none the worse.

one in particular being quite fat. The cattle are a very fine lot of Herefords with just a touch of Shorthorn blood. Each of the cows rears two calves in the year, and most of them finish up fine carcasses for the butcher, though now and then a deep milker is sold as a down-calver. There are eight of them, all reared on the farm, with fifteen yearlings and eleven calves, nearly all home-bred. Mr. Evans has recently invested in a pedigree Hereford bull, which is certainly more satisfactory than dependence on his neighbours' sires. The sheep are Kerry Hills crossed with an Oxford tup for early lamb, and nearly all of the lambs had gone before the Royal Show. The pigs are large whites, home-bred, and just useful.

On the whole it may be described as a wonderful piece of intensive farming for so small a holding.

Second prize in this class went to Mr. James Owen of Cockshutt, Montgomery. This little farm is near the town of Montgomery, and about four miles distant from Montgomery station. It is 75 acres in extent, of which only 18 acres are arable. The soil is heavy, overlying clay, and a five-course rotation is practised, oats following the wheat crop. After an early harvest Mr. Owen follows the good practice of sowing mustard on the stubbles, but this is not very often possible. The most notable thing about the corn crops was the backwardness of the barley. The grass land runs down to the river and two of the meadows are flooded in the late autumn with the first flush of water. The rest is treated alternately with farmyard manure and basic slag, in rotation. As in the case of the previous farm the meadows were still uncut in July and such weeds as Yorkshire fog were seeding; otherwise it was a beautiful cut, which drew a special remark from the Judges.

There were two brood mares on this holding, one bred by the tenant, and with one exception all the cattle were home-bred. They were mostly Herefords, and very nice, and it is rather remarkable to note that during winter the cows get nothing but straw, while it lasts, and hay after calving. There are also a few Shorthorn cows, and these get a few pounds of kibbled oats and Bibby meal in addition. Notwithstanding this rather Spartan fare the Hereford cows are expected to rear three calves—a much more productive system of management than that usually adopted with Herefords. Mr. Owen complained of the cost of good calves. It was interesting to note that he had given up grazing all his stock on for beef, in order that he might take advantage of the prevailing high price of stores.

The whole of the sheep are registered Kerry Hills, and Mr. Owen follows a very unusual practice in keeping back

the ewes for breeding until they are two-shear; the lambs were well grown in spite of this seeming violation of "early maturity" principles, and Mr. Owen is a very successful ram breeder. He is also an enthusiastic breeder of middle white pigs.

The buildings are deficient in several respects, but the holding generally is well managed.

The third prize was awarded to Mr. George Warren, of Hilly Lees Farm, Heaton, near Macclesfield. The farm is entirely grass, consisting of 80 acres of pasture land, and 25 acres of meadow land. It is situated slightly to the north of the main road from Leek to Congleton, about five miles from Leek, seven from Congleton and twelve from Macclesfield. The soil is a medium loam overlying clay in one part of the farm and gravel in the rest. The farm is an upland dairy farm, about 800 feet above the sea level, and only a short distance from both the Cheshire and Derbyshire county boundaries. Mr. Warren's custom is to treat his meadow land each year with farmyard manure and liquid manure; the pastures receive the surplus of these manures after the whole of the meadow land has been treated, together with an occasional dressing of lime, bones, superphosphate and potash, or basic slag. The Judges expressed themselves as well satisfied with the results of this treatment. The holding supports an average of twenty-two cows in milk, most of which are home-bred, as were also all the heifers and calves. The bull is a Short-horn from Westmoreland, but Mr. Warren has no details of his pedigree. The cows receive a "bucket-full" of malt culms and bran, and sharps or Indian meal (about 3 lb.) before milking in the morning, during winter, and after watering, long hay is given. At four o'clock they receive about 3 lb. of linseed cake with a little bran, they are again watered, and receive the rest of their hay at milking time. Mr. Warren believes in turning out the cows each day in winter for water, an excellent custom which might be more generally practised. In summer time the cows receive nothing up to the end of July, after which they get about 3 lb. a day of dairy meal, or cotton seed meal, with a little bran. It is to be regretted that milk records are not kept, but all the milking is done under Mr. Warren's supervision, and the less satisfactory milkers are fed off for the butcher. The calves receive new milk for the first three or four weeks, when they are brought on gradually to curds, and finally on to whey and calf meal twice daily. All calves are vaccinated as a preventative against black-quarter.

Two useful brood mares are kept and the working horses are all young ones. A fair number of pigs are kept to help

the calves to consume the whey, for cheese is made on this farm all the year round, as has already been noted in the case of another competitor. The pigs are of the middle white breed, and some forty are got off at about 240 lb. dead weight to the bacon curers. Mr. Warren has erected a new implement shed at his own expense, and in other ways has effected improvements upon this nice little grass farm.

ARABLE FARMS.

CLASS III.—150 acres or over.

Coming now to the farms chiefly arable, there were twelve entries in the large farm class, ten of which were from Shropshire and two from Staffordshire. The first prize was awarded to Mr. J. Morris Belcher, of Tibberton Manor, Newport, Salop. The farm is situated about five miles west of Newport, eleven miles south of Market Drayton, and about seven miles north of Wellington. It is within a few miles of the Staffordshire border, and many of the great centres of industry within that county, such as Stoke, Stafford, and Wolverhampton, lie within a 20-mile radius. The farm is compact, with a very pleasant farmhouse and buildings conveniently placed about the centre of the holding. The plough land varies very much in quality, but the grass land is mostly on clay and peat. The farm extends to 480 acres, of which about 298 are arable. A four-course rotation is followed, but on the lighter land Mr. Belcher sometimes takes barley after clover instead of wheat. The acreage returned under crops this year was as follows:—

69	acres	roots
97	"	barley
67	"	seeds
40	"	wheat
273		

The remainder of the acreage was in carrots, parsnips, and potatoes.

The root crops were beautifully clean as a whole; occasional patches in a less satisfactory condition show how land so highly farmed as this is must grow something. Great crops of carrots are grown; up to 20 tons of "intermediates" have been produced on this farm. The barley seemed a great acreage, but the reason for this has already been given; some of it was rather laid, but there should have been a tremendous crop, and the same may be said of the wheat. Mr. Belcher's practice in manuring is as follows:—swedes and mangolds receive 7 to 10 cwt. of basic slag, or 7 cwt. steamed bone meal, and in either case a top dressing of 1 cwt. of nitrate of soda and 2 cwt. of

salt. Besides this the mangold ground receives about 10 tons of farmyard manure ploughed in during the previous winter, and about 12 tons of farmyard manure are spread on the clover leys between the two harvests. As might be expected on a first prize arable farm, the implements were very conspicuously good, and a blacksmith kept on the farm insured their being maintained in good repair and condition.

The Judges remarked upon the improvement effected on the grass-land, both by grazing cake-fed stock, by application of farmyard manure, and by dressings of basic slag on the peat meadows. On the remainder of the grass Mr. Belcher thinks he gets better results with kainit than with superphosphate. Certainly the grass land seems bursting with fertility, and the only criticism which can be advanced is in the matter of thistles. Mr. Belcher has had some special irons made for dealing with these and with docks, but it was noticeable here as in other places that there is still considerable misunderstanding as to the nature and habits of growth of the different varieties of this pestilential weed. It is only by the recognition of the various kinds, together with a study of their methods of growth and reproduction, that their eradication can effectually be accomplished.

Mr. Belcher is a very large feeder of cattle. In common with most other people he has experienced the difficulty of getting stores, but this he gets over by rearing a great number of calves on a few cows. His system is to wean them as soon as possible, and from the time they will eat cake, &c., they are never without it till they leave the farm, some as two-year-olds, but many younger than this. Thus, instead of going into the market for his stores, he takes the rearer's profit right through to the butcher. The sheep stock consists of a flock of Shropshire ewes of the commercial type, together with a flying flock of Kerries; some fat lamb is produced and the remainder are fed off on the roots as yearlings.

But the great feature amongst the live-stock on this farm are the shire horses, and Mr. Belcher has one of the best farmers' studs in the country. It is not possible or necessary to enumerate here all the successes that have been gained in the showyard and sale ring, but probably few farmers could show a larger collection of cups and other trophies than that which adorns Mr. Belcher's sideboard. One of his most successful mares is *Tibberton Forest Queen* by *Redlynch Forest King*. She has won first prizes at Shropshire, West Midland, Staffordshire, Cardiff, Wirrall, and Birkenhead Shows, not to mention local shows, and was third in a strong class at the Shrewsbury Royal Show when four years old and suckling a good filly foal to *Norbury Menestrel*. In 1912, at the Newport

(Salop) Show, Mr. Belcher captured eight first prizes for shires, and won outright the two 25-guinea challenge cups, having won them for three years in succession; both of these cups have been replaced and both of them won again by Mr. Belcher in the years 1913 and 1914. Mr. Belcher is now devoting attention to the stallion trade; his three-year-old *Bellapart Forest King* was highly commended at the Shrewsbury Royal Show, and has been let at a good figure to the Ministerley Society.

The occupier of this holding is also the owner, having purchased the farm a year ago, but nothing about the premises suggested that the place was likely to suffer from want of attention to those matters of maintenance and repair usually effected by a non-occupying landlord. All the buildings are commodious, up-to-date, and tidy, and fences, ditches and gates were in first-rate order. And Mr. Belcher (or does the credit belong to Mrs. Belcher?) is to be congratulated on a very beautiful garden.

The second prize in this class went to Mr. John Edward Bourne, for his farms, near Market Drayton. The farms lie between the main roads from Newport via Market Drayton to Nantwich, and that from Stafford through Woore to the same place, being distant about twelve miles from Whitchurch on the west, and the same distance from Stoke on the east. There are two holdings some distance from each other. Most of the land is light and sandy, though some is stronger. The total acreage of the farms is 485 acres, of which about 224 are arable. The lighter land is cropped on a six-course rotation, with seeds down two years, and two years roots including potatoes and carrots. On the stronger land a five course rotation is practised, with three-fifths in corn. The district is too late for any catch cropping. The cropping this year was as follows:—

20	acres	swedes.
4	"	cabbage
10	"	mangolds
16	"	potatoes
4	"	carrots
32	"	barley
56	"	seeds
32	"	wheat
50	"	oats

224

All the arable land was clean and well cultivated, with heavy root crops, and the Judges commented specially upon his growth of clover hay, which they regarded as the heaviest seen in the competition; there was also an extraordinarily good piece

of temporary pasture which had been down for four years. On the home farm especially there was a very heavy crop of oats, and the wheat and barley were also very satisfactory, the former particularly on the out-lying farm, where the quality was also unusual for the district. The influence of the Staffordshire factory towns makes itself felt as at Tibberton, and Mr. Bourne grows a considerable acreage of potatoes and carrots, the latter not quite such a good plant, he said, as he usually expected.

About 50 acres of the grass land is mown, and this receives farmyard manure and artificials in alternate years; the pasture receives phosphatic dressings about every four years. Mr. Bourne showed a very interesting piece of grass land, which is now most excellent pasture. Till some few years ago, however, it had been useless, always being wet, his explanation, doubtless a true one, being that it was the doubling of the drains, thus getting them 18 feet instead of 36 feet apart, that caused the improvement. As to the live stock, the horses are Shires of a good class, mostly young and suitable for the farm. There are about eighty cows in-milk or in-calf, and, unlike so many farmers of the district, Mr. Bourne goes in for milk selling and not for cheese making. At the home farm there was a very good young Shorthorn bull, selected on its reputation for milk on both sides, but once again it was a reputation and not a record. A herd of thirty young cows was particularly good, even for this district of good cattle. Mr. Bourne's management of his calves is interesting, for each of them wears a collar, and is tied up to one of a row of chains with spring hooks arranged round the wall, for a short time before and after being fed from the pail. He finds this is long enough to prevent them sucking one another, whilst it makes them easier to handle for the rest of their lives. On the piece of temporary pasture to which reference has already been made, were some sheep which typified the management of the district. A flock of cross-bred Kerry Hill ewes had been brought in in the autumn and put to a Down ram, in this case an Oxford. The ewes lambed in March, and by June 30, fifty per cent. of the lambs had gone to the butcher, fat. On July 6, another lot were ready to go; the rest were excellent stores, and would be finished off in due course as mutton by Christmas or early in the following year on roots. So well had ewes and lambs been done, that the former were almost ripe for the butcher to whom they were shortly to be sent. This system admits of the carrying of a large herd of sheep stock for part of the year, and yet resting the land from sheep a considerable portion of the time. People unaccustomed to the district would find it difficult to believe that these small ewes would suckle two

such large lambs, and the percentage of twins was very high indeed, as is almost invariably the case with these half-bred mountain ewes when brought on to the rich pastures and seed leys of the district.

The herd of sows was very fine and some points of their management most interesting. For instance, Mr. Bourne makes a practice of spaying, and said that it was common in his particular district. He also pointed out a black-faced sow, one of his own breeding, from a sow bred from pure whites for many generations by a boar from a well-known prize-winning herd of large whites; presumably this mismarking came with a "wide" change of blood.

The buildings are only moderate, and not quite good enough for an enterprising tenant doing his best to develop his holding in every possible way, and ably assisted therein by his two sons. He has improved the premises at his own expense by the addition of Dutch barns and sheep and cattle sheds, but it must be recognised that the provision of proper equipment on the holding is the first essential for the maximum production from the land.

The third prize was taken by Messrs. Richard Preece & Son, of Cressage House, Cressage, and this farm lies nicely, a little south of the river Severn and the road from Shrewsbury to Wenlock and Bridgnorth. It is about twelve miles south-east of Shrewsbury and eight miles south-west of Wellington, with the commanding outline of the Wrekin intervening. It comprises about 450 acres, of which some 204 acres are arable land; the larger part of it consists of a sandy or gravelly soil, good barley and root land, but about one third is stiff clay. The farm is nicely laid out all round the farm buildings, which are very good, convenient, and up-to-date and capable of housing a large head of cattle. A five-course rotation is followed, with two barley crops following the root crop, no catch cropping is practised except in very early seasons. All the arable land was very free from weeds; the root crops were good, and the barley particularly was excellent, this farm like many others in the Severn valley growing a particularly fine sample. On the strong side of the farm the management was equally good, as shown by the heavy crops upon it. With regard to manuring Messrs. Preece apply 5 cwt. of special barley manure, or other artificial, to the second barley crop, and it is their custom to use about 30 cwt. per acre of lime on part of the clover ley before breaking it up for wheat or barley; in other respects the manuring presents no unusual feature.

Some of the grass-land on the clay side of the farm is very poor and seems to be water-logged. The Messrs. Preece use

about 15 tons of basic slag annually on their meadows with good effect, whilst the pastures depend upon the caking of stock.

The horses were a useful lot of working shires, most of them young. They are bought as colts, and two or three are sold each year to go into the towns. In this way the cost of the horse labour can be materially reduced, given good luck and good judgment. All the cattle are purchased either to feed off on roots or to graze. About 100 head are fed off in the yards, and these are of all sorts, picked up, no doubt, as opportunity offered—Herefords, Angus, Shorthorns, Devons, and many cross-breds. All would go off as prime beef, mostly after winter feeding; the greater proportion are purchased in the early part of the year and summered on the grass land; the best of them get 6 to 8 lb. of cotton and linseed cake mixed with crushed oats, and when put up in yards are fat by Christmas, the cake ration being increased up to 10 lb. during the last period. The Judges remarked that the profit of this system depends entirely on the state of the markets at the times of buying and selling, and the results are often disappointing. The sheep are mostly cross-breds, Kerry Hill ewes being put to a Shropshire ram for early lamb; they get their own living till about one month before lambing, when they receive a daily feed of hay and roots. Between 200 and 400 tcs are finished on swedes with about 1 lb. of cake, and go off fat between Christmas and March, whilst about 150 are purchased in the spring and fattened off on cake and corn during the summer.

The pigs and poultry, which are under the supervision of Mrs. Preece, are a very active part of the management.

The farm has been in the occupation of the same family since 1853. Much has been done during that time by successive tenants for the improvement of the place, including the haulage of all materials for the erection of the farm-house, buildings, and two cottages, whilst among other improvements two sets of Dutch barns have been erected at the tenants' cost. In fact, the whole place shows evidence of continuous good management.

CLASS IV.—Not less than 50 acres and under 150 acres.

The small arable farm class attracted six entries, four from Shropshire and two from Staffordshire. First prize was awarded to Mr. Wilmot Jackson, of Manor House Farm, Abbots Bromley, near Rugeley, Staffordshire. The farm is situated very well for markets, about twelve miles north of Lichfield, twelve miles west of Burton-on-Trent, and eight miles south of Uttoxeter. The farm buildings are not elaborate, but they are fairly suitable for the requirements of the holding, and they are very well kept.

The farm is just 100 acres in extent, 42 acres being plough land. This is cropped on the four-course rotation, and no catch cropping is practised in the district. The soil is a medium loam overlying gravel and clay, and it is in a high state of fertility. The cropping this year was :—

7	acres roots, &c.
15	" oats
10	" seeds
10	" wheat
<hr/>	
42	
<hr/>	

Sometimes the seeds are left down for two years.

Heavy dressings of farmyard manure are applied to the root crops and seeds, together with a few hundredweights of kainit and steamed bones. The Judges remarked that all the crops were a credit to the management; the wheat and oat crops were very heavy, and a field of clover and rye-grass hay was also particularly good.

The grass land varies a good deal; the higher lying land is only of middling quality; though it has been improved under Mr. Jackson's management, which includes regular dressing with slag. The lower meadows are very rich grass, and include 12 acres of water meadows. These are grazed up to June 1, after which they are laid in for hay and mown during July; they can be irrigated as required, and produce great crops of grass and hay.

With regard to live stock, Mr. Jackson's object is the production of milk, all of which is sent to the Farmers' and Cleveland Dairies Co., Uttoxeter, for conversion into cheese. Railway carriage is paid by the factory, and the prices received under a yearly contract are 7*d.* per gallon for the summer six months, and 9*d.* per gallon for the winter six months. The herd of about thirty Shorthorn cows in-milk or in-calf are a very beautiful and quite an exceptional lot. They are very uniform, practically all of them home-bred, and they reflect the greatest credit upon their owner. Many of them are winners at local shows. Amongst other successes, first and championships have been secured at the Staffordshire Show, and at the Shropshire and West Midland in several years. Only the best heifers from the best cows are retained, and these, and the calves, were fully up to the standard of their mothers. The bull in use at the present time is a roan of beautiful quality from Westmoreland, and bred for milk, but ineligible for the herd-book through his mother. Milk records are not kept, but the average yield per cow last year reached the high figure of 842 gallons, and realised 29*l.* 8*s.* 10*d.* per head.

Mr. Jackson keeps the cows regularly groomed; in fact, everything about his management of them shows the care and forethought brought to bear upon the business.

A few pigs are bred and fed, and occasionally some sheep are bought in.

Mr. Jackson, assisted by Mrs. Jackson and their two sons, are responsible for nearly all the work of the place, very little outside labour being employed. The Judges remarked that, taking the farm as a whole, it stood out like an oasis in a desert, the crops and stock being so much superior to those in the immediate vicinity.

Second prize went to Mr. Peter Crow, of Trysull Manor Farm, Wolverhampton, for a very different holding, but one which also impressed the visitor with the vigorous management behind it. It lies a mile or two to the west of the Wolverhampton-Stourbridge road, almost within sight and sound of some of the busiest places in industrial England, for a half-circle described with a ten mile radius eastward from Trysull would include such places as Wolverhampton, Willenhall, Darlaston, Bilston, Wednesbury, Tipton, Dudley, Brierley Hill, Stourbridge, &c. In these circumstances, it is natural to find that the character of the farming is entirely determined by the markets, and the way in which Mr. Crow, who came into the district from the east of Scotland, has laid himself out to cater for them is worthy both of praise and of imitation. The farm is about 120 acres in extent, of which 100 acres are arable. This is cropped on a three-course system; clover and rye-grass, half-grazed and half-mown, is taken first; this is followed in the second year with potatoes and mangolds, and as fast as the potatoes are dug (and they are all up by the first week in July) the ground is ridged again and sown with turnips and swedes: the swedes are drawn off for the cows, and the turnips are folded with sheep. In the third year, barley, wheat and oats are grown, with the clover seeds drilled amongst them.

On a visit early in July, the potatoes were being dug and sold in one part of the field to costermongers for ready money, whilst the remainder of the field was being ploughed for white turnips, Mr. Crow being of the opinion that the haulm is as good as a dressing of manure. There was nothing to indicate that potatoes were being taken too often, and in places where the local demand is so great, it is a question if this well-known East of Scotland custom of taking potatoes once in three years might not profitably be extended. All the potato digging is done by hand to prevent bruising of the skins, but in other respects the implements in use were of the labour-saving, up-to-date order. The oats were very fine, and it should be remarked that the tenant was conducting some variety trials.

The barley had been dressed with sulphate of ammonia, and was a tremendous crop, but this manure might have been omitted with advantage, for the crop was badly laid in places. The wheat, too, was as good as it could be, but a stiffer strawed variety might, perhaps, have been substituted. The mangolds had been practically spoiled by floods.

There were five young horses on this little holding, bought as colts and broken to farmwork, and afterwards sold off at good prices to go on the streets; the advantages of this system have been already mentioned.

The cows were a magnificent lot of non-pedigree dairy Short-horns, mostly bought in, for the herd is a new one. No records are kept, but there was a young bull with a great milk pedigree, for future use, and it is Mr. Crow's intention to introduce record-keeping into his management. The sheep are Kerry Hills, and these are crossed with an Oxford tup for early lamb, which is typical of the local practice. The pigs, again, reflect the quickness of the tenant to meet the local demand, for some five sows are kept solely to breed suckers for sale (at wonderful prices) to the colliers; and the demand for poultry is not overlooked, for there is a considerable head of silver and white Wyandottes, and about sixty turkeys.

A veritable hive of industry.

The third award went to a farm very different from any of those foregoing. The holding occupied by Mr. Richard Brian Marsh, at Holloway, lies in Corve Dale, a narrow valley formed by the eastern slope of Wenlock Edge and the western side of that range of hills of which Brown Clee is the most important. It is on the high road running from Wenlock south west to Craven Arms, about ten miles from either place, and Ludlow to the south and Bridgnorth to the east are each some twelve miles distant. Church Stretton is a few miles to the westward, but the climb over intervening Wenlock Edge, and then over Caer Caradoc, is not to be undertaken lightly. The soil is for the most part a medium loam of fair depth, but so precipitous are the fields that heavy rain will sometimes wash it right away. The house is pleasantly situated by the roadside, but the farm buildings are deplorably bad. In spite of this, however, the tenant was able to fatten thirty beast in them and to cart manure up the terrible hill sides. The farm is 126 acres in extent, 82 acres being arable. All this land is clean, and full of fertility, and the barley was standing wonderfully, even after heavy rain. On this soil lime is said to have no effect as a cure for "finger and toe," but Mr. Marsh thought the next clover crop showed benefit. The oat crops were magnificent. All the grass land lay in the bottom on each side of the brook, and was very well grazed, the class of land of which so much can be

seen full of rushes, but here they were kept down by skilful grazing and constant attention from the scythe.

The cattle are bred on the farm, or bought young, and finished off with roots in the winter after one year's grazing. The sheep are of a strictly commercial type, Clun Forest crossed with a Shropshire ram. The "singles" are got off as fat ewes, and the "couples" go off as they are ready.

Horses need to be good to negotiate the hill-sides, and three are often required in the dung cart. The Judges complimented Mr. Marsh on the way in which the harness was cared for, and remarked that at most of the farms visited the work-horse harness was dirty and ill-kept. They note that the farm is hardly adapted for show purposes, but that the tenant deserves every credit for his enterprize and good management in the face of considerable natural difficulties.

It may be said that the outstanding features of the Farm Competitions of 1914 are the high quality of the live stock in the district, and the comparative indifference to the careful management of the grass land. The locality has more than a local reputation for nearly all classes of live stock, and time and again the Judges in their notes remark upon the excellence of the animals shown to them. As regards the grass land, comment has been made upon such customs as alternate mowing and grazing, and on the inclination to allow weeds and weed-grass to reproduce themselves. If these things were noteworthy in the case of the prize-farms, they were even more obvious in the district generally, and they cannot fail to strike the outside observer as matters worthy of consideration and attention.

Another question that might well engage the attention of farmers is the keeping of records of all sorts. With one notable exception, milk records, departmental accounts, &c., were conspicuous only by their absence, and as was remarked last year, it is questionable whether the time has not been reached in the history of the farming industry at which the wonderful practical skill and technical knowledge of the English farmer demands its complement in the more adequate business organisation of the farm.

The thanks of the writer are due to the Judges, Mr. Alfred Broome, of Preston Brook, Warrington; Mr. D. E. Byrd, of Spurstow Hall, Tarporley; Mr. Thomas A. Buttar, of Corston, Coupar Angus; and Mr. Frank B. Wilkinson, of Cavendish Lodge, Edwinstowe, Newark; and particularly to Mr. K. J. J. Mackenzie, Reader in Agriculture in the University of Cambridge, for their assistance in the compilation of this report. C. S. ORWIN.

Institute for Research in Agricultural Economics,
University of Oxford.

**REPORT OF THE JUDGES ON THE
CHAMPIONSHIP HEDGING COMPETITION,
HELD AT SHREWSBURY ON
FEBRUARY 25, 1914.**

SHOULD the Royal Agricultural Society decide to continue the competitions another year, we would suggest that instructions should be given to the competitors to lay the fence to be cut all one way and from the ditch side should there be one. In this competition most of the pieces were laid towards the ditch, which should not be.

We were much interested in the work done, some of which was very creditable and entailed a lot of work, but in our opinion the majority of competitors did not realise that the fence being cut was between two pasture fields that apparently carried a good head of stock, including horses; the consequence was, in our opinion, they cut far too much live wood out, and thus did not leave (after layering) a sufficient quantity of brush or back on the opposite side to the ditch to keep the cattle away from the fence, as it is done in Leicestershire, Warwickshire and Northamptonshire, until the young shoots have grown up; this also affords much better shelter to stock, especially to ewes and lambs.

Much of the work done by the competitors made a hedge sufficiently strong had it been between two arable fields, but not nearly strong enough in pasture fields.

Some very creditable work was done by quite youths (especially one of seventeen years), apparently the result of lessons they had received, and, in our opinion, such lessons imparted, either by the different associations, societies, and probably County Council classes, are doing much good, and should be encouraged not only to provide better fences and shelter, but to enable the workmen to earn good wages; skilled hedgers in our Midland Counties earning high wages per week.

We consider the Society acted wisely in grouping together the competitors from the three counties of Shropshire, Montgomeryshire and Staffordshire, because they had a good opportunity of learning much by comparing work done in the different districts.

R. C. COOPER,
WM. W. HUTTON.

NOTE BY SIR GILBERT GREENALL, BART., C.V.O.

For some years past the bad state of the fences in many parts of the country has been a matter of general comment.

With a view of improving this state of things, many societies and others have taken up the matter, and are doing most excellent work.

There seems, however, to be a lack of general information on the subject, and, consequently, local customs are followed which are, in many cases, absolutely wrong, both in theory and practice. This is not so marked in pastoral districts, but where mixed farming is pursued the fences are often so badly grown, or so seriously ruined by cutting, that when the land is in pasture they are practically useless. I have, therefore, with the assistance of a few practical men in various parts of the country, drawn out a few suggestions which, I hope, may prove to be of service.

PLANTING FENCES

1. Whitethorn is the most suitable plant for most parts of the country, as it is long lived and of vigorous growth, making a strong fence and providing an excellent shelter for stock.

2. In former days, before the draining of land became a general practice, hedges were in many parts planted on banks made by the soil dug out to form ditches, but to-day it is a common practice in localities where mixed farming is pursued to plant on the flat, i.e. on a bed only slightly raised above the level of the land.

In very wet districts, or on strong clay land, a ditch is an absolute necessity, but in the majority of places a grip about eight inches wide and about the same depth cut on each side of the bed will as a rule do all the draining required. The sod thus cut out should be turned against the roots.

Pipe drains alongside fences are useless, as they so soon become choked with roots.

3. When a ditch is made, care should be taken not to make the bank on which the fence is to be planted too vertical, nor should the fence be put too near to the ditch side, as in the event of the bank falling away the roots become exposed, or at all events too near the surface to get sufficient nutriment.

4. The bed should be prepared at least a month before planting, which is best done in November or December, but may be continued to the middle of February. It should be at least 4 ft. 6 in. wide, the middle 2 ft., forming the root bed, being trenched to the depth of 2 ft., and the remaining portions to the depth of 1 ft.

Long farmyard manure should be dug into the root bed in order to keep the land suitable for the growth of root fibre, and if the soil is of a poor nature sods or well rotted turf should also be added.

5. Planting on sites of old fences is useless unless new soil is provided; this is best done by digging out the old soil, setting the new soil from a trench alongside and replacing it with that dug out of the old fence line. The bed must then be formed as described in the previous paragraph.

6. The quick should be three years old, with plenty of root fibre, and planted not too deeply in parallel lines some six to eight inches apart, and eight inches from one another in the rows. About 200 plants to the chain will be required. The planting should be done that one row breaks joint with the other, so practically there is a plant every four inches in the fence. Close planting is a great mistake, as not only do the stronger plants smother the weak ones but it tends to make them draw upwards too quickly, the spaces between the lateral shoots near the base being thereby lengthened. It also adds to the difficulty of cleaning the bed, which it is most necessary to do regularly until the fence is established.

7. The quick should be cut down after planting, or at latest the year following, within two or three inches of the ground. It should then be allowed to grow at least two years before it is cut into shape, or five or six years if it is intended to be layered.

It is useless to plant new fences unless they are strongly protected against stock and ground game until they are matured.

TRAINING AND CUTTING FENCES.

1. It is an exceedingly difficult thing to get a fence narrow on the top and wide at the base, unless it has been planted with this object in view. In many cases, therefore, it is better to cut it off with a downward stroke of the axe or bill-hook within two or three inches of the ground, and start afresh with the new growth.

2. Cut a grip eight inches wide by eight inches deep on each side the fence, about 2 feet 6 inches from the centre, the soil or sod taken out being turned on to the roots, thus forming a bed which must be kept clean in order that the young shoots from the stools may not be smothered. The fence must, from the first, be protected from cattle and ground game.

3. After two or three years' growth it is quite possible to cut a young fence into triangular shape at about 2 feet high. This should be done with a very sharp bill-hook, which will leave the young stakes at practically three heights, i.e. 2 feet in the centre down to 6 inches at the outsides.

4. The fence should not be trimmed the next year, but in the year following it will be quite easy to put into shape again at a height of 4 feet. After this the fence can be cut as often as desired, but it is not advisable to do so too frequently. The

shears should never be used; they do not make a clean cut and cause the fence to become cankered. January and February are the best months in which to do this work.

5. When the fence is fully grown and in the right shape, very little cleaning of the bed will be necessary, grass and weeds can be easily cut out as occasion requires with a fagging hook.

6. When a field is being ploughed, two or three furrows should always be turned towards the fence. This will protect the roots and thereby encourage the growth of the fence.

7. When a field is about to be temporarily pastured, the fence should not be cut on that side, the retention of the brush prevents stock injuring the fence, which can be cut back into shape again when the field goes under tillage.

It must always be remembered that fences are for use, and not merely for ornament.

LAYERING FENCES

1. Cut off, with an upward stroke if possible, the brush on the ditch side of the fence only, in order that the man may be able to work.

All the brush must be left on the field side, so that when the fence is layered it will prevent stock (especially horses) reaching over to bite the young shoots which are growing from the stools and also from getting their heads under the binder and lifting it off the stakes. Any pieces which are superfluous can be cut off after the work is completed.

2. Cut off level with the ground, by a downward stroke of the axe or bill-hook, all dead and decaying stumps; and root out briar, elder, and other undesirable plants.

3. Thoroughly clean the bank or bed of the fence before commencing to layer.

4. The most vigorous young rods should be selected for layering, but it is a mistake to thin out the rods before actually bringing the wood down, as if only the number required for layering are left and some are damaged in working, weak places in the fence will be the result.

5. The rod should be brought down by giving it a downward cut about four inches from the ground on exactly the opposite side to the direction in which it is desired to layer it and just deep enough to allow of it being bent over into position; the small piece standing up should be cut off with an upward stroke, so that there may be no place left for water to lodge and cause the layer to rot.

6. No live stakes should be allowed to remain in the fence.

7. The stakes used should as far as possible be cut out of the fence itself, but in a competition time would not allow of

this, so a supply must be on hand. Competitors should be required to sharpen their own stakes.

8. The fence should be layered away from the ditch and pushed over far enough to allow light and air to the stools and prevent any drip on the new shoots springing from them.

9. The fence should be finished with a "binder" made from light rods of hazel, blackthorn, or wych elm (willow or briar can be used where these more durable woods are not available), firmly put on in the opposite direction to the layering and not less than 4 inches from the top of the stakes.

10. The fence should be from 4 feet 6 inches high, from the ground to the binder.

11. No dead wood must be layered in gaps; if there are not sufficient rods on each side to fill up the gap by layering in both directions, and thus protect any new quicks planted in the line of the stools, it is better to cut it all away and pale across the gap in a line with the stakes and binder.

The paling prevents stock biting the new quicks, which they invariably do through the ordinary rails, unless set out at a great distance from the fence, which is for many reasons objectionable. It is useless to plant new quicks in the gaps of an old fence unless the ground is renewed with fresh soil of a clayish nature, years of drip on the accumulation of decayed leaf have rendered the land so porous that, unless new soil which will hold the moisture is provided, the young quicks must inevitably die off.

12. The soil out of the ditch should be used to make up the bank.

13. When the field on the ditch side of the fence is likely to be stocked before the new growth from the stools is fully established, the thorns which have been cut out of the fence are usually placed in the ditch, otherwise stock are apt to get down into it, bite off the young shoots on the opposite bank and at the same time poach and destroy the ditch. In some counties a guard rail from 2 feet 6 inches to 3 feet in height, slightly inclined towards the field, is also fixed in front of the ditch.

14. Where a fence is on the flat (*i.e.*, without a ditch) unless there is an obvious reason otherwise, the fence should be layered to the north or against the prevailing wind, so that the young shoots from the stools may be sheltered as much as possible.

15. No saw must be used on any pretext.

GILBERT GREENALL.

Walton Hall,
Warrington.

REPORT OF THE COUNCIL TO THE
ANNUAL GENERAL MEETING OF GOVERNORS
AND MEMBERS OF THE SOCIETY,

HELD AT THE ROYAL AGRICULTURAL HALL, ISLINGTON, N.
On WEDNESDAY, December 9, 1914, at 2.30 p.m.

The Council have to report that the list of Governors and Members has undergone the following changes during the year which has elapsed since the Annual General Meeting on December 10th, 1913: 17 new Governors (including 6 transferred from the list of Members under By-law 7), and 688 new Members have joined the Society, 10 Members have been re-instated under By-law 14, and 3 Honorary Members have been elected by the Council; whilst the deaths of 6 Life Governors, 3 Governors, 2 Honorary Members, 90 Life Members and 144 Members have been reported. A total of 42 Members have been struck off the books under By-law 12, owing to absence of addresses; 1 Governor and 90 Members under By-law 13, for arrears of subscription; and 2 Governors and 196 Annual Members have resigned.

Since the last Annual Meeting the losses through death sustained by the Society have again been heavy. Mr. Martin John Sutton, of Reading, who died suddenly in December last, was an active Member of the Council from 1883 till 1904, and at the time of his decease was one of the Society's representatives on the National Agricultural Examination Board, of which body he had been appointed Chairman in the week preceding his death. It will also be remembered by those who were at the Annual Meeting last year that Mr. Sutton was present and spoke on that occasion.

Amongst other Governors and Members whose death the Society has to deplore are Earl Cawdor, Earl of Clarendon, G.C.B. (Life Gov.), Earl of Ellesmere (Life Gov.), Earl of Minto, K.G., Earl of Wemyss and March, Viscount Cross, G.C.B., Lord Belper (Life Gov.), Lord Forbes, Lord Merthyr, K.C.V.O., Lord Sutherland, G.C.V.O., K.C.B., Lord Ventry, Col. the Hon. A. Cathcart, the Hon. R. P. Nevill, the Hon. H. R. Scott, Sir Herbert Ashman, Bart., Sir C. G. Ascheton-Smith, Bart. (Gov.), Sir Stephen W. Furness, Bart., M.P., Sir J. H. Heathcoat-Amory, Bart., Sir E. Durning Lawrence, Bart., Sir Charles Morrison Bell, Bart., Sir J. W. Ramsden, Bart., Sir John Shiffner, Bart., Sir John Swinburne, Bart. (Life Gov.), Sir H. M. Vavasour, Bart., Sir William Vincent, Bart., Sir M. A. Wilson, Bart., Surgeon-General Sir Annesley C. C. De Renzy, K.C.B., Mr. Eustace H. Barlow, Mr. Thomas Bate, Mr. J. B. Close Brooks, Mr. C. T. D. Crews, Mr. Cyril G. Cunard, Mr. G. C. Dobell (1864), Major-General H. Edmeades, Mr. William Foster (Mel Valley), Mr. T. W. Glenny (Sidecup), Mr. C. S. Hardy, Mr. W. H. Hills, Mr. G. M. Hipwell (1860), Mr. E. G. Hodgson (1861), Mr. James Hole (1862), Mr. James Hope (East Barns, Dunbar), Mr. Henry C. Howard, Mr. Robert Howell, Col. R. Inigo Jones, Mr. Myles Kennedy,

Mr. C. E. D. Morgan-Richardson, Col. Henry Platt, C.B. (Life Gov., 1862), Mr. Albert Pulling, Mr. H. E. Raynbird (1847), Mr. C. P. Selby-Bigge, Mr. William Sills (1857), Mr. C. A. Smith-Ryan, Mr. F. H. Stericker, Mr. Edward Storey, Mr. Alfred Tanner, Mr. H. J. S. Tory, Mr. Hamer Towgood, Mr. A. M. Tree, Mr. E. C. Trevilian, Mr. William Tudge, Mr. Frederick Turner (1857), Mr. J. G. Watson, and Mr. O. O. Walker.

(Since the date of the passing of the Report by the Council, the deaths of the Duke of Buccleuch, K.G., and Sir Walter Gilbey, Bart., have occurred.

Sir Walter Gilbey's connection with the Society had existed for 45 years, he having joined as a Member in 1870. He was elected a Member of Council in 1881, Vice-President in 1889, Trustee in 1896, and was President of the Society in 1896, in which year the Show was held at Leicester; and will be remembered for the active interest he showed in all matters concerning the Society.

The following Members of the Society, who were serving with the Expeditionary Force, have been killed in action:—
Capt. T. H. Rivers Bulkeley, O.M.G., M.V.O., Capt. S. H. Christy, D.S.O., Major Lord Bernard C. Gordon-Lennox, Lieut. Theodore H. Galton, Capt. Everard J. Lamb, and Capt. J. M. Lambert.)

The above, and other changes, bring the total number of Governors and Members now on the Register to 10,570 divided as follows:—

- 174 Annual Governors;
- 89 Life Governors;
- 7,641 Annual Members
- 2,637 Life Members;
- 29 Honorary Members;

10,570 Total number of Governors and Members as against a total of 10,434 Members on the Register at the time of the last Annual Report.

During the present year the Council have elected the following three gentlemen as Honorary Members, in recognition of their services to Agriculture: Mr. Thomas F. Plowman (Secretary of the Bath and West of England Society), Monsieur Henry Sagnier (Perpetual Secretary of the National Agricultural Society of France), and Dr. Prof. Comm. Edoardo Perroncito, of Turin.

Under the Chairmanship of the Right Hon. Sir Ailwyn Fcllowes, a Committee was appointed by the Council to consider what steps should be taken to increase the membership of the Society and in what manner the Society could be made of still more use to its Members. This Committee have held several meetings and given consideration to a variety of suggestions, and their report, containing certain recommendations, has been presented to the Council.

Acting on one of these recommendations, the Council decided to organise an Exhibition of Grain and Seeds, and all preparations were made for this to be held at Nottingham in

October. Owing, however, to the exceptional conditions caused by the War, it was felt necessary to abandon the project for this year.

The Members of Council who retire by rotation at the Annual Meeting in December next are those representing the following electoral districts comprising Group A:—Northumberland, Yorks. North Riding, Lancashire (and Isle of Man), Cheshire, Derby, Northampton, Norfolk, Bedford, Hertford, Middlesex, Stafford, Worcester, Monmouth, Cornwall, Dorset, Hampshire and Channel Islands, and Scotland. The Members of the Society resident in those districts have all been communicated with, and the necessary measures are being taken for the election or re-election of representatives for the divisions concerned. In consequence of the diminution of the membership in Northumberland and Norfolk, each of these counties will have its representation reduced.

In accordance with the By-laws, the balance-sheet has to be presented for consideration at the Annual General Meeting. The Council therefore beg to submit the balance-sheet for the year 1913, with the Statement of Ordinary Income and Expenditure. These accounts were published in Volume 74 of the Journal issued to Members early this year, having been duly examined and certified as correct by the Auditors appointed by the Members, and by the professional Accountants employed by the Society.

At a special meeting held on September 1st the Council unanimously resolved, on the motion of the President, seconded by H.R.H. Prince Christian, K.G., that a sum of £1,000 be contributed by the Society to the Prince of Wales' National Relief Fund.

The show at Shrewsbury was the third which has been held by the Society in that town, and, as in the year 1884, it was held on the Old Race Course and adjoining lands. This site near the old Abbey was splendidly adapted for the purposes of the show, and the situation of the yard was most picturesque. From the point of view of excellence of exhibits the 1914 show was without doubt one of the best ever held under the auspices of the Society, and with the one exception of the Jubilee Show at Windsor in 1889, the live stock entries were the largest on record. The show, which took place from Tuesday, June 30th, till Saturday, July 4th, opened in brilliant weather with excessive heat, which continued for two days. On the afternoon of the third day there was a thunderstorm with a very heavy rainfall, which caused parts of the show-yard to be flooded for a short period. The ground, however, very quickly recovered from the deluge.

His Majesty the King graciously honoured the show with a visit on Friday, the first one-shilling day, and spent some time making a tour of the yard.

The show was also visited on the first two days by the party of fifty South African farmers then present in this country, and on the last day by a number of peasant farmers from Siberia.

The Mayor of Shrewsbury (Major Wingfield) and the Members of the Local Committee, under the Chairmanship of Sir J. Bowen Bowen Jones, Bart., were indefatigable in their efforts to make the show a success. The Society are much indebted to these gentlemen and also to Lord Powis, who was Lord Lieutenant of Shropshire in addition to being President of the Society, to the Honorary Treasurer of the Local Fund, Mr. Beville Stanier, M.P., and to the Honorary Secretaries, Mr. Alfred Mansell and Mr. H. C. Clarke. The Council also desire to acknowledge the kindness of the Shropshire and West Midland Agricultural Society, who voluntarily gave up their show on the occasion of the Society's visit.

The total attendance of paying visitors to the Shrewsbury show was 87,803, and, as will be seen from the accounts to be presented at the Annual Meeting, the result was a loss of £3,616.

In the Scheme of Rewards for Skilled Agricultural Labour and Long Service, thirteen local Societies in Shropshire, Montgomeryshire and Staffordshire participated this year. In all 112 rewards—each consisting of a bronze medal and certificate—were made, 63 for ploughing, 46 for hedging, and 3 for long service. A championship Hedging Competition was also held at Belvidere, Shrewsbury, under the auspices of the Royal Agricultural Society, in February, open to first prize winners in the local competitions. Thirty-two men competed and the championship (silver medal, certificate and £5) was awarded to John Eaton, Myddlewood, Shrewsbury, of the Whitechurch and District Agricultural and Horticultural Society. The presentation of the Championship Medal, etc., was made to the successful competitor by the President at the General Meeting held in the Showyard at Shrewsbury.

In view of the War, it has been decided to suspend the Scheme of Rewards for the forthcoming year.

The Schedule of Prizes for Live Stock, Poultry and Produce at the show to be held at Nottingham, from the 29th June to the 3rd July, 1915, will be issued early in the New Year. Owing to the many other calls through the War, it is not expected that as large a local fund will be forthcoming as has been the case in past years from the districts visited; consequently the Schedule and the scope of the show will be reduced. Classes and Prizes for Driving Horses or Jumping Competitions have been omitted; but, should favourable conditions prevail later, the Council will consider the advisability of offering prizes for these sections, in which case particulars will be issued in due course.

Offers of Champion and other prizes have been received from the following Breed Societies:—Shire Horse Society, Clydesdale Horse Society, Suffolk Horse Society, Hunters' Improvement and National Light Horse Breeding Society, Hackney Horse Society, National Pony Society, Welsh Pony and Cob Society, Shorthorn Society, Dairy Shorthorn (Coates's Herd Book) Association, Hereford Herd Book Society, Devon Cattle Breeders' Society, Longhorn Cattle Society, Sussex Herd Book Society, Welsh Black Cattle Society, Red Poll Cattle Society, Aberdeen Angus Cattle Society, English Aberdeen Angus Cattle

Association, Galloway Cattle Society, British Holstein Cattle Society, English Jersey Cattle Society, English Guernsey Cattle Society, English Kerry and Dexter Cattle Society, Shropshire Sheep Breeders' Association, Southdown Sheep Society, Hampshire Down Sheep Breeders' Association, Suffolk Sheep Society, Dorset Horn Sheep Breeders' Association, Ryeland Flock Book Society, Kerry Hill (Wales) Flock Book Society, Lincoln Long Wool Sheep Breeders' Association, Leicester Sheep Breeders' Association, Society of Border Leicester Sheep Breeders, Wensleydale Blue-faced Sheep Breeders' Association, Loni Sheep Breeders' Association, Kent or Romney Marsh Sheep Breeders' Association, Cotswold Sheep Society, Exmoor Horn Sheep Breeders' Association, Breeders of Cheviot Sheep, Breeders of Herdwick Sheep, Welsh Mountain Flock Book Society, British Berkshire Society, Lincolnshire Curly Coated Pig Breeders' Association.

The following Challenge Cups are again also offered:—

£50 Silver Cup for the best Suffolk Stallion.

Fifty Guinea Cup for the best Group of Dairy Shorthorns.

£20 Silver Cup for the best Animal in the South Devon Cattle Classes.

£15 Silver Cup for the best Longhorn Bull or Cow.

£15 Silver Cup for the best Longhorn Yearling Bull or Heifer.

Twenty-five Guinea Silver Cup for the best Animal in the Kerry Classes.

Twenty-five Guinea Silver Cup for the best Animal in the Dexter Classes.

Sixty Guinea Silver Cup for the best Border Leicester Ram or Ewe.

In the Poultry section Special Prizes are being contributed by the following Clubs:—White Wyandotte Club, Black Wyandotte Club, Partridge Wyandotte Club, White Orpington Club, Black Orpington Club, Blue Orpington Club, Spangled Orpington Club, Dorking Club, Sussex Poultry Club, International Buttercup Club, British Rhode Island Red Club, Yokohama Club, Malines Poultry Club, Campine Club, and Japanese Bantam Association. The Scots Dumpy Club have guaranteed two classes for Scots Dummies and the White Faverolle Club two classes for White Faverolles.

In the Produce section Classes and Prizes will be provided for Butter, Cheeses made in 1915, Cider and Perry, Bottled Fruits and for Bacon and Hams. The Bottled Fruits Classification has been arranged so as to include competition by both the large grower and the smallholder. The fruit must have been grown in England. In the Bacon and Ham Classes the Exhibitor must be the curer and *bona fide* owner of the pigs from which the Bacon and Hams respectively are taken. The pigs must be bred in the United Kingdom and either be entered or eligible for entry in their respective Herd Books, or must be the produce of the first cross of pedigree pigs.

With regard to the Wool Classification it has been decided to again include separate Classification for Wool of the respective Breeds whose Breed Societies desire their inclusion in the Prize Sheet; also classes will be provided for Wool from Cross-Breed Sheep.

It is hoped that it may be possible to hold the Horticultural Exhibition and also the National Terrier Club's Championship Show in the Showyard.

The following sections which usually find a place in the R.A.S.E. Showyard will be omitted:—Agricultural and Rural Education Exhibition, Forestry Exhibition, Butter Making Competitions, and Horse Shoeing Competitions. The Plantations and Home Nurseries Competition will also be abandoned next year.

His Grace the Duke of Portland having signified his willingness to accept nomination as President of the Society for next year, when the Show will be held at Nottingham, the Council have unanimously decided to recommend his Grace's election to that office at the Annual Meeting in December.

In connection with the Society's Show for the year 1915 the following Prizes are offered by the Nottingham Local Committee for the best managed Farms in Nottinghamshire, Derbyshire and Leicestershire:—

CLASS I.—Arable Farm, 400 acres or over, of which, approximately, two-thirds must be arable. First Prize, £100; Second Prize, £50; Third Prize, £10.

CLASS II.—Arable Farm, 200 acres and under 400 acres, of which, approximately, two-thirds must be arable. First Prize, £60; Second Prize, £30; Third Prize, £10.

CLASS III.—Arable Farm, 50 acres and under 200 acres, of which, approximately, two-thirds must be arable. First Prize, £40; Second Prize, £20; Third Prize, £5.

CLASS IV.—Grazing or Dairy Farm, 400 acres or over, of which, approximately, two-thirds must be permanent grass. First Prize, £100; Second Prize, £50; Third Prize, £10.

CLASS V.—Grazing or Dairy Farm, 200 acres and under 400 acres, of which, approximately, two-thirds must be permanent grass. First Prize, £60; Second Prize, £30; Third Prize, £10.

CLASS VI.—Grazing or Dairy Farm, 50 acres and under 200 acres, of which, approximately, two-thirds must be permanent grass. First Prize, £40; Second Prize £20; Third Prize £5.

The acreage of the Farms in Classes I. to VI. is exclusive of Sheep run.

The entries in the above classes closed on the 14th September, and a preliminary tour of inspection has already been made by the Judges.

It was proposed to hold in the Autumn of 1915 Trials of Agricultural Tractors, and Ploughs to be used with Tractors, and provisional Regulations had been issued; but owing to the unfortunate circumstances that have arisen it has been decided to postpone the holding of these Trials.

As already announced, the Show of 1916 will be held at Manchester, and arrangements have been made to present a day ticket, available for any day of the Show, to each Member of the Royal Lancashire Agricultural Society, being a Member in 1915—other than exhibitors, who will receive the ordinary exhibitor's ticket—and for all Members of the Royal Lancashire

Agricultural Society to be allowed to make entries for the Show at the same rate as Members of the Royal Agricultural Society.

There has been a slight increase in the number of samples submitted by Members for analysis in the Society's Laboratory, the total being 416 as against 393 in 1913. In connection with the Society's Show at Shrewsbury, there were also 214 samples of milk and 60 samples of cider analysed.

The work of the Laboratory has brought out the fact that the adulteration of offals, which it was believed had almost ceased, has again broken out. Besides the addition of foreign materials to the offals of wheat, known under the varying terms of "Pollards," "Middlings," "Sharps," etc., it has been found, in not a few cases, that offals sold under these names have contained but small proportions of the "bran" or husk, but have been composed, for the greater part, of the purely starchy portion or "flour." This is not what a farmer requires when he buys wheat offals for pig-feeding or the like, and, though it is inevitable that in the process of milling a certain proportion of the "flour" is left attaching to the bran, it is not for the flour but for the bran, in its varying degrees of fineness, that the farmer purchases offals.

The outbreak of war has caused an immediate cutting off of the supplies of kainit and other potash salts, inasmuch as these were obtainable only from the Stassfurt and other mines of Northern Prussia. This will impose great difficulties alike on the farmer who needs potash on his land and on the manufacturers of artificial compound manures. At present there is no regular supply to be obtained elsewhere, though it may be found possible to use the insoluble feldspars and other minerals as a source of potash.

From India and elsewhere supplies, to a limited extent, of nitrate of potash (nitre) may also be available at enhanced prices. Possibly, too, the dearth of potash salts may lead to the revival of the practice of kelp (seaweed) burning, but these and other remedies suggested can only be looked upon as very partial means of supplying the need. Meantime it is well to remember that Peruvian and other natural guanos frequently contain notable amounts of potash, as does also farmyard manure.

The Woburn Experimental Station has continued its work with perhaps greater activity than ever, and the farm and experiments have been largely visited by agriculturists. Among these was the party of South African Farmers who visited this country in June. Visits were also paid by the members of the International Congress on Tropical Agriculture, students of the Agricultural Colleges of Scotland, students of the Glamorgan-shire County Council, the staff of the Rothamsted Experimental Station, and others. The annual visit of Members of the Society took place on July 18th, when 63 were present, and on July 29th about 20 Members of Council and invited guests (among these being the Secretary and other officials of the Board of Agriculture, as well as the Vice-Chairman of the Development Commission) inspected the Experimental Station.

Heavy rain in March followed by prolonged drought caused a very trying season, on the light land of Woburn, for wheat, more especially in the case of the permanent wheat plots. Barley, however, was more successful.

There were interesting trials of different varieties of wheat, barley, and oats, and of these the most promising was a Swedish barley, "Svalöf Primus," which was very early in ripening. Four different varieties of linseed were also tried; but, once again, Soya, though sown quite early, failed to bring pods to maturity. The Lucerne plots were carried on successfully for another season, and the Russian (Europe) variety, as before, was the best yielder, followed by the Provence and the Canadian varieties. The clover and grass mixtures, which comprised the comparison of "wild white clover" with the ordinary white, created much interest, and these, as well as the plot of "wild red" clover, showed clearly the different nature and close creeping habit of the "wild" varieties.

Even more striking, because here shown for the first time on the field scale, was the influence of the application of magnesia, in place of lime, on a wheat crop, thereby following up the lessons obtained in the Pot-culture Station. The Green-manuring experiments were continued in Stackyard and Lansome fields, as also the experiments on pasture, in which the influence of lime in different forms is now beginning to be very marked.

At the Pot-culture Station the Hills' experiments were upon the influence of salts of copper and lead. Other experiments embraced the continuation of the magnesia inquiry, the influence of lime and of chalk on acid soils, experiments with new inoculating materials (humus), and with sewage sludge. In the field the successful work of eradicating Wild Onion (the outcome of the Pot-culture work) has been continued at Chelsing, near Ware, Herts.

The calf-rearing experiments, begun in the spring of 1912, were brought to a conclusion in the spring of 1914, the animals being then slaughtered. The results, which will be published in full in the Journal, bore testimony to the great value of crushed oats with separated milk as a food for young calves. This experiment having been conducted with spring-born calves, it was decided to carry out another on similar lines, but with autumn-born calves. The new experiment was started in October, 1913, and, so far as it has gone, it has confirmed entirely the former conclusions, the highest gains having been obtained with whole milk and with crushed oats, the latter feeding being much the most economical.

The work at Woburn, and in particular that of the Pot-culture Station, suffered a most severe loss by the death, early in September, of Mr. H. M. Freear, who for 14 years had been resident in charge of the laboratory and Pot-culture Station. Though never a recognised official of the Society, but acting as Dr. Voelcker's personal assistant, Mr. Freear threw himself heart and soul into his work, and devoted all his time to the interests of the Society and to making the Pot-culture Station a centre of usefulness. Those who have visited Woburn or who

have met Mr. Freear at the annual shows of the Society will have vivid memories of his lucid explanations and of the keen interest he took in his work. The whole of the experimental work at Woburn is deeply indebted to him for the ability and zeal he ever displayed.

The Council have subscribed a sum of £50 towards the Fund raised for the building of a new Laboratory, in celebration of the Centenary of Lawes and Gilbert.

During the past year 188 samples of the smaller agricultural seeds, 32 samples of cereals and 4 mixtures of grass and clover seeds were received for analysis. In a detailed report on the results of these analyses, now in preparation, full information will be given with regard to their purity and germinating capacity. Fifteen weeds were identified and, where feasible, measures were suggested for their eradication.

Enquiries with regard to fungoid diseases were less numerous than usual: they numbered only 28 and few proved of any general interest. The one outstanding exception is the "corky scab" of potatoes recently scheduled by the Board of Agriculture.

General enquiries embraced a wide range of subjects such as the value of horse chestnuts for feeding purposes, the possibility of cultivating soya beans and maize in this country, the preparation of fungicides, the selection of grasses for special soil conditions, the distribution of some poisonous species of plants, etc. The total number of such enquiries was 102. Included in the total are some twenty requests for information with regard to the cropping capacity of some of the newer varieties of cereals. The increasing demand for information on this subject is being met by recording as completely as possible the results from the different experimental stations where such varieties are systematically tested.

The work of the Zoological Department during the year has, as usual, comprised the giving of advice to members in connection with insect attacks, the identification of specimens, and research on the life-history of particular pests. The applications for advice have covered a wide field, including internal and external animal parasites and various creatures injurious to farm crops, fruit and forest trees. They have not, however, been affected as much as was anticipated by the remarkable weather conditions of the year. Certain pests—notably some species of Aphis, and Diamond-back moth—have been more prevalent than usual, but there have been few surprises, and the work has been largely of a routine description. A research into the relation of pheasants to agriculture was commenced at the beginning of the year and is still proceeding.

The Council, through their Veterinary Committee, have had under consideration various matters connected with animal diseases, and representations have been made to the Board of Agriculture and Fisheries with regard to the methods of dealing with sheep scab, swine fever, and the conditions governing the importation of Irish cattle into this country. The Report on the Tuberculosis experiments at Woburn concluded last year has been issued to Members.

Since the beginning of the year there has been a substantial decline in the reported outbreaks of glanders. On the other hand, there has been a slight increase in the outbreaks of anthrax and sheep-scab, and an unprecedented increase in the prevalence of swine fever. In certain selected areas the so-called serum treatment is now being systematically tried by the Board of Agriculture and Fisheries in dealing with the last-named disease, only the visibly diseased animals being slaughtered, while the remainder receive a subcutaneous injection of protective serum. A considerable experience will be necessary to show whether this is a satisfactory procedure either from the point of view of the owner or of the State.

Twenty-four outbreaks (up to the 13th of November) of foot-and-mouth disease have been reported since the beginning of the year, the total number of animals attacked being 125. The outbreaks were in the counties of Durham (1), Worcester (1), Carnarvon (1), Lancaster (6), Lincolnshire (11), Kent (1), Northampton (1). In all cases the outbreaks were promptly dealt with by slaughter of the diseased animals and of all those exposed to risk of contagion.

A new Tuberculosis Order of the Board of Agriculture which came into operation on the 1st of July contained some important changes, especially with regard to valuation and compensation, but owing to the outbreak of war the Order was suspended as from the 6th of August. From the same date were also suspended various sheep dipping Orders of local application, and the parasitic mange Order, except with regard to the prohibition to expose or move animals affected with the disease.

A donation of Twenty-five Guineas was made by the Society towards the funds of the Organising Committee of the Tenth International Veterinary Congress which had been arranged for this year. At the opening meeting held in London early in the month of August it was found necessary, however, to abandon the proposed Congress.

As the result of the examination at the Royal Veterinary College for the Society's Medals for proficiency in Cattle Pathology, including the diseases of Cattle, Sheep and Pigs, the Silver Medal has been awarded to Mr. H. H. Curson, of 41, Westbere Road, West Hampstead, and the Bronze Medal to Mr. G. H. Melch, of Berg River, Hopefield, Cape Colony.

The Trustees of the "Queen Victoria Gifts" Fund have made a grant of £140 for the year 1914 to the Royal Agricultural Benevolent Institution, to be distributed as fourteen grants of £10 each to the five male candidates, five married couples, and four female candidates who polled the largest number of votes in their class, and who would not this year receive grants from any other fund in connection with the Royal Agricultural Benevolent Institution.

The Society's Gold Medal for Original Research in Agriculture is again offered under the Regulations printed below:

1. The Medal shall be called the Royal Agricultural Society of England's Research Medal.

2. The Medal shall be awarded for a monograph or essay giving evidence of original research on any agricultural subject or any of the cognate agricultural sciences applicable to British Farming, and which has not been previously published.
3. Candidates for the Medal must reside in Great Britain or Ireland, and must not be either over the age of twenty-seven years or of more than five years' standing from the time of taking their first agricultural qualification, such qualification being (a) a Degree or Diploma of a University or University College, or a school or college associated with a University, or (b) the National Diploma in Agriculture.
4. The Medal shall be adjudged by Referees appointed by the Council of the Royal Agricultural Society. The Referees shall have power to award in the place of the Gold Medal a Bronze Medal and Books, together of equivalent value to the Gold Medal, if the successful candidate so desires.
5. The monograph or essay shall be forwarded to the Secretary of the Royal Agricultural Society on or before July 25th. The monograph or essay shall be typewritten or printed.
6. If in the opinion of the Referees no monograph or essay be found to attain a sufficient standard of excellence, they shall be at liberty to reserve the medal of that year for award as an additional medal in some subsequent year.
7. The monograph or essay of the successful candidate may be published in the Journal of the Royal Agricultural Society, if, in the opinion of the Council, it is suitable for that purpose.

The award of the Gold Medal will carry with it Life Membership of the Royal Agricultural Society.

The Fifteenth Annual Examination for the National Diploma in Agriculture was held at the Leeds University from the 17th to the 24th April last, when thirty-five candidates were successful in obtaining the Diploma, the first two gaining Honours. For list see page 244.

The Examination for the National Diploma in Dairying was held this year for English students from September 12th to 18th, at the University College and British Dairy Institute, Reading; and for Scottish students from September 18th to 26th, at the Dairy School for Scotland, Kilmarnock. Thirty-four candidates were examined at the English Centre, of whom twenty-one were successful, and at the Scottish Centre thirty candidates were examined, of whom twenty-one passed. The names of the Diploma winners will be found on pages 248 and 249.

By Order of the Council,

THOMAS McROW,

Secretary.

16, BEDFORD SQUARE, LONDON, W.C.

November 4th, 1914.

NATIONAL AGRICULTURAL EXAMINATION BOARD.

I.—REPORT ON THE RESULTS OF THE FIFTEENTH EXAMINATION FOR THE NATIONAL DIPLOMA IN AGRICULTURE,

HELD AT LEEDS, APRIL 17 TO 24, 1914.

1. THE Fifteenth Examination for the NATIONAL DIPLOMA IN AGRICULTURE was, by the courtesy of the authorities, held at the University of Leeds from the 17th to the 24th April last. The subjects of Examination were Practical Agriculture (two papers), Farm and Estate Engineering (including (a) Surveying, (b) Farm Buildings, (c) Machinery and Implements), Agricultural Chemistry, Agricultural Botany, Agricultural Book-keeping, Agricultural Zoology, and Veterinary Science. Under the Regulations, the whole eight papers may be taken at one time, or a group of any three or four in one year and the remaining group of four or five in the year following. Candidates taking the whole Examination in one year who fail in not more than two subjects are allowed to take those subjects alone in the succeeding year. Candidates failing in a single subject of a group are permitted to take that subject again in conjunction with the second group.

2. One hundred and thirty-nine candidates presented themselves on this occasion (as compared with 112 last year, when the previous largest number was examined). Nine candidates sat for all subjects, and 50, who had previously passed a portion of the Examination, appeared for the remaining subjects. Of these 50, two—who had passed certain subjects under the old Regulations—were permitted to come up for six subjects, twelve took five subjects, including one subject in which they failed in 1913, 29 took four subjects, and seven sat for a single subject in which they were unsuccessful last year. The other 80 candidates presented themselves for a group of three or four subjects.

3. As the result of the Examination, *two* of the nine candidates taking all subjects, *thirty* of the forty-three taking a group of subjects, and *three* of the seven taking a single subject—making 35 in all—were successful in obtaining the Diploma, *two with Honours*.

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4. In the list which follows the names of the two candidates gaining Honours are given in order of merit, and those of the ordinary Diploma winners in alphabetical order.

Diploma with Honours.

1. HARRY MUIR MCCREATH, West of Scotland Agricultural College, Glasgow.
2. FLOWERS LEONARD KIRK, Midland Agricultural and Dairy College, Kingston, Derby.

Diploma.

- ARCHIBALD ALLAN, West of Scotland Agricultural College, Glasgow.
 LIONEL RAYMOND ALLEN, Harper-Adams Agricultural College, Newport, Salop.
 PERCY BOOTH, Aberdeen and North of Scotland College of Agriculture, Aberdeen.
 GEORGE ROBERT DAVIES, University College of North Wales, Bangor.
 EDGAR DOBB, Harris Institute, Preston.
 LEONARD F. S. EASTHAM, Harris Institute, Preston.
 GEORGE EDMONDSON, Harris Institute, Preston.
 ROBERT JAMES FANNIN, Royal College of Science, Dublin.
 ERIC WILLIAM FIELDS, University of Leeds.
 JOHN STUART BEATLEY GATHERGOOD, University College, Reading.
 HARRY HARRIES, West of Scotland Agricultural College, Glasgow.
 RONALD ISLA HARVEY, West of Scotland Agricultural College, Glasgow.
 ISAAC JONES, West of Scotland Agricultural College, Glasgow.
 ROBERT JAMES KERR, West of Scotland Agricultural College, Glasgow.
 ARTHUR KING, University of Leeds.
 JOHN GARDEN LAMB, Aberdeen and North of Scotland College of Agriculture, Aberdeen.
 JOHN MILLER, West of Scotland Agricultural College, Glasgow.
 JOSÉ PEDEN, West of Scotland Agricultural College, Glasgow.
 JOHN ALEXANDER PHILIP, Aberdeen and North of Scotland College of Agriculture, Aberdeen.
 HENRY BARNHATT PIDDUCK, Harper-Adams Agricultural College, Newport, Salop.
 GEORGE FREDERICK PILLING, Harris Institute, Preston.
 PERCIVAL JOHN POWELL, Midland Agricultural and Dairy College, Kingston, Derby.
 JOHN RAMSDEN, University of Leeds.
 LINDSAY ROBB, West of Scotland Agricultural College, Glasgow.
 FRANK HENRY ROBINSON, Harper-Adams Agricultural College, Newport, Salop.
 JAMES STRACHAN, M.A., B.Sc., Aberdeen and North of Scotland College of Agriculture, Aberdeen.
 CHARLES LIONEL SILVESTER, Harper-Adams Agricultural College, Newport, Salop.
 ROBERT JAMES SMITH, Aberdeen and North of Scotland College of Agriculture, Aberdeen.
 WILLIAM WHEELHOUSE SMITH, University of Leeds.
 WILFRID HERBERT TYNE, University of Leeds.
 ROBERT WATSON, Aberdeen and North of Scotland College of Agriculture, Aberdeen.
 FRANK WHITTAKER, Harris Institute, Preston.
 ROBERT WISHART, West of Scotland Agricultural College, Glasgow.

Of the 80 Candidates who appeared for a group of three or four subjects, the following 39 passed, and are therefore entitled to present themselves for the remaining subjects in 1911:

- OSWALD ANDERSON, University of Leeds.
 JAMES BOWIE, West of Scotland Agricultural College, Glasgow.
 RICHARD BRETHERTON, Harris Institute, Preston.
 GEOFFREY WILLIAM BRIGHT, Harper-Adams Agricultural College Newport, Salop.
 DOUGLAS FOURSTAIN BRIDLE, West of Scotland Agricultural College, Glasgow.
 WILLIAM CALDWELL, West of Scotland Agricultural College, Glasgow.
 WILLIAM A. O'CARROLL, Aberdeen and North of Scotland College of Agriculture, Aberdeen.
 GEOFFREY FLETCHER OLLY, Harris Institute, Preston.
 JAMES KILGON CONVAL, West of Scotland Agricultural College, Glasgow.
 WILLIAM CHOMIE, Royal College of Science, Dublin.
 HUGH DAINES, Royal College of Science, Dublin.
 ORVILLE LUNN FERNES, College of Agriculture, Holmes Chapel, Cheshire.
 GEORGE JOHNSTON FLEMING, East of Scotland College of Agriculture, Edinburgh.
 FRANK LESLIE HALL, Harper-Adams Agricultural College, Newport, Salop.
 MISS ANNIE JANE HASTINGS, West of Scotland Agricultural College, Glasgow.
 ALEXANDER HAY, East of Scotland College of Agriculture, Edinburgh.
 ALEXANDER MARSHALL HENDERSON, West of Scotland Agricultural College, Glasgow.
 ARTHUR EDGAR FIELD HILL, Midland Agricultural and Dairy College, Kingaton, Derby.
 FREDERIC WESTLEY IVENS, Harper-Adams, Agricultural College, Newport, Salop.
 EVAN THOMAS JONES, University College of Wales, Aberystwyth.
 VIVIAN GEORGE JONES, Harper-Adams Agricultural College, Newport, Salop.
 PERCY ALBERT KEEN, Harris Institute, Preston.
 GEORGE MAGNUS LESLIE, Aberdeen and North of Scotland College of Agriculture, Aberdeen.
 MATTHEW BLACKWOOD LOCKE, West of Scotland Agricultural College, Glasgow.
 JOHN ARCHIBALD MACARTHUR, West of Scotland Agricultural College, Glasgow.
 ANDREW MCBRIDE, West of Scotland Agricultural College, Glasgow.
 JAMES MCLINDEN, West of Scotland Agricultural College, Glasgow.
 FRANCIS A. MCCONNELL, Royal College of Science, Dublin.
 JAMES ANTHONY MORE, East of Scotland College of Agriculture, Edinburgh.
 BHARLAL SHANKERBHAI PATEL, West of Scotland Agricultural College, Glasgow.
 ALAN STEWART PATTEN, Royal Agricultural College, Cirencester.
 ROY BURCH STRANG, South Eastern Agricultural College, Wye, Kent.
 EDWARD OGILVIE TURNBULL, University of Leeds.
 ALEXANDER JOHN WATT, Aberdeen and North of Scotland College of Agriculture, Aberdeen.
 JAMES BARTON WHALLEY, Harris Institute, Preston.
 JOHN WILSON, West of Scotland Agricultural College, Glasgow.
 CHARLES RODNEY WIMSHURST, South Eastern Agricultural College, Wye, Kent.
 DAVID WYLLIE, West of Scotland Agricultural College, Glasgow.
 GEORGE DUNLOP WYLLIE, West of Scotland Agricultural College, Glasgow.

6. Fifteen of the 41 unsuccessful candidates sitting for a group of three or four subjects failed in a single subject, which, under the regulations, they will be entitled to take again next year in conjunction with the second group.

7. The candidates at this year's Examination came from fifteen different agricultural training institutions in the United Kingdom.

- 9 English Colleges sending up 77 candidates
- 3 Scottish Colleges
- 2 Welsh Colleges
- 1 Irish College

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The remaining two candidates possessed University degrees, and apparently had not taken courses at any agricultural college recognised by the National Agricultural Examination Board.

6. The Reports of the Examiners in the different subjects are appended:—

PRACTICAL AGRICULTURE. (First Paper, 300 Marks. Second Paper, 300 Marks.)
Mr. T. A. Dickson, Mr. John Gilchrist, F.S.I., and Mr. William Burkitt, B.Sc.

The Examiners are pleased to be able to report that the general standard is higher than in recent years, and quite a satisfactory number obtained "honours" marks in this subject.

Whilst it is essential that the candidates should have an exact knowledge of agriculture as practised in their own district, the Examiners are strongly of the opinion that for this Diploma a wider knowledge of agriculture in districts other than their own is also necessary.

FARM AND ESTATE ENGINEERING. (300 Marks.) Mr. R. Strachan Gardiner, F.S.I.
(Surveying and Farm Buildings); Professor R. Stanfield, M.Inst.C.E.
(Machinery and Implements).

Land Surveying and Farm Buildings.—In the Surveying Section the plotting was well done in the majority of cases, but it was evident that most of the candidates had not had sufficient practice in drawing and the use of plotting scales. Methods of computation were generally unnecessarily long, and so absorbed too much time. More attention should be paid to acquiring a practical knowledge of ordnance maps, and to the computation of areas by equalising lines and triangulation, which would be quite accurate enough for most agricultural purposes.

In the Farm Buildings Section candidates acquitted themselves far more satisfactorily in the oral examination than in the paper work, and it was again evident that little time had been given to drawing, very few being able to make a clear sketch plan. A fair general knowledge of dimensions and prices was shown, but although practically all the candidates were conversant with the average prices per cubic foot for farm houses, buildings, and cottages, in no case was the correct method given of taking the dimensions of a building for arriving at the cubic contents.

Machinery and Implements.—Most of the candidates appeared to possess a sound working knowledge of the subject. The sketches and descriptions of the implements, and their method of working, showed that the candidates had given special attention to this important branch of agricultural work. In conducting the oral examination the Examiner purposely deviated from the particular type of questions set in the paper, and very intelligent answers were obtained from the majority of the candidates. On the whole the Examiner considers the results very satisfactory.

AGRICULTURAL CHEMISTRY. (300 Marks.) E. J. Russell, D.Sc., and Herbert Ingle, B.Sc.

Speaking generally the candidates were better prepared than last year, and there was a distinct improvement in the quality of the work sent in. The Examiners desire, however, to draw attention to two defects revealed during the examination, which

un- seriously detract from the educational value of the work done during the preparation for this Diploma. The first is the general lack of good preliminary training; many of the candidates could neither spell correctly, write legibly, nor express themselves in simple straightforward language. The second is the relatively small extent to which some of the candidates had thought for themselves. Many of them had picked up phrases quite correctly from the class-room or the text book, but had never thought out for themselves what the words really meant; sometimes also a large amount of laboratory work had been done, without any adequate realisation of what the different processes stood for. It would, however, be unfair to blame the teacher of agricultural chemistry for all this, and perhaps the most satisfactory feature the Examiners have to report is the evident sincerity with which the subject has been handled by the teachers, and the great value of some of the courses to students who are properly prepared to receive them.

AGRICULTURAL BOTANY. (800 Marks.) R. Stewart MacDougall, M.A., D.Sc.

There was evidence in the papers of much good work in this subject. While the number of outstanding papers was not great, the average was good. The drawings given in illustration of the answers were sometimes excellent, but in this and in the general tidiness of the answers there is room for improvement. The oral part of the examination was encouraging; the recognition of specimens was well done, but some of the candidates had little or no grasp of the general principles underlying plant physiology.

AGRICULTURAL BOOK-KEEPING (200 marks).

Mr. Charles S. Orwin, M.A., F.S.I.

Seventy-five candidates presented themselves for examination in this subject. The standard of work was good and most candidates showed a clear knowledge of the principles of book-keeping. The Examiner again remarks, however, that it is desirable that more attention should be devoted to a comprehension of the objects of book-keeping, namely, to get information about the business, which will be useful in its successful development, and that mere accuracy in recording receipts and payments is not in itself sufficient. Many of the candidates showed too little regard for the advantage of neatness and tidiness when dealing with figures.

AGRICULTURAL ZOOLOGY (200 marks). R. A. Harper Gray, M.A., M.Sc.

The written papers in Agricultural Zoology showed a good knowledge of the subject on the part of most of the candidates. It may be well to mention, however, that, compared with those of last year, many of the answers showed a lack of conciseness and neatness of arrangement, while several candidates gave, in their answers to the questions, matter that was not asked for. There was also a marked absence of illustrative diagrams that might have been used with advantage.

In the *visu voce* examinations many of the candidates showed a good practical acquaintance with the specimens supplied, and with the important economic points relating to them.

VETERINARY SCIENCE (200 marks). Professor Sir John McFadyen, M.B.

The knowledge displayed by the candidates was scarcely up to the average of recent years. It was ascertained that some of the candidates had not yet taken a course in chemistry, with the result that their grasp of the elementary facts of digestion and other physiological processes was very defective. The writing and spelling of many of the candidates left much to be desired.

9. The thanks of the Board are again due to the authorities of the University of Leeds, for their liberality and courtesy in placing the Large Hall and other rooms of the University at the Board's disposal for the Examination; and to the Examiners, for the care and attention they bestowed upon the written answers to the papers set, and upon the *visu voce* examination.

ALEXANDER CROSS, *Chairman.*

THOMAS MCROW, *Secretary.*

16 Bedford Square, London, W.C.
May, 1914.

II.—REPORT ON THE RESULTS OF THE NINETEENTH EXAMINATION FOR THE NATIONAL DIPLOMA IN DAIRYING, 1914.

1. The Nineteenth Annual Examination for the National Diploma in the Science and Practice of Dairying took place in September, 1914. The Examination was held for English candidates at the University College and British Dairy Institute, Reading, from September 12 to 18, and for Scottish candidates at the Dairy School for Scotland, Kilmarnock, from September 18 to 26.

2. Under a regulation which came into operation for the first time this year, each candidate for the Examination was required to produce "evidence that he or she had spent at least four months on an approved Dairy farm and that he or she had taken part in the work." This requirement has doubtless been responsible for the raising of the standard of efficiency in the practical part of the Examination as compared with previous years.

3. At the English Centre thirty-four candidates presented themselves. Of these the following twenty-one satisfied the Examiners, and have therefore been awarded the National Diploma in the Science and Practice of Dairying:—

MISS EVA M. RAGGULEY, Midland Agricultural and Dairy College, Kingston, Derby.

STEPHEN BARTLETT, British Dairy Institute, Reading.

KENNETH HILLS BOND, Midland Agricultural and Dairy College, Kingston, Derby.

MISS DOROTHY VERNON DEARDEN, British Dairy Institute, Reading.

HARRY HARRIES, British Dairy Institute, Reading.

THOMAS ALFRED HOLE, British Dairy Institute, Reading.

MISS JESSIE HUTCHINSON, Lancs. County Council Farm, Hatton, Preston.

ISAAC JONES, British Dairy Institute, Reading.

MISS SARAH JONES, University College of Wales, Aberystwyth.

VIVIAN GEORGE JONES, Harper-Adams Agricultural College, Newport, Salop.

MISS PATRICIA HELEN LEWIS, Midland Agricultural and Dairy College, Kingston, Derby.

MISS BEATRICE MANNERS, Midland Agricultural and Dairy College, Kingston, Derby.

FRANK A. OVERIN, Midland Agricultural and Dairy School, Kingston, Derby.

JOHN PARSONAGE, Midland Agricultural and Dairy College, Kingston, Derby.

WILLIAM PETRE, British Dairy Institute, Reading.

DORA PYBUS, Midland Agricultural and Dairy College, Kingston, Derby.
 JAMES ERNEST SHACKLTON, Midland Agricultural and Dairy College, Kingston, Derby.
 CHARLES LIONEL SILVESTRE, Midland Agricultural and Dairy College, Kingston, Derby.
 MISS CONSTANCE E. SPRKMAN, Lancs. County Council Farm, Hutton, Preston.
 MISS ELIZABETH WELCH, Lancs. County Council Farm, Hutton, Preston.
 MISS LILLIAN M. WILLETT, Midland Agricultural and Dairy College, Kingston, Derby.

4. Thirty candidates were examined at the Scottish Centre, and of these the twenty-one whose names are given below were awarded the Diploma:

MISS EDITH MABEL BLACKBURN, Outside Farm, Wallasey, Cheshire.
 EDGAR DOBE, Brick House, Leigh, Manchester.
 MISS BESSIE FINLAY, Mains of Loinston, Nigg.
 ROBERT EVELYN GILBERT, Longfleet, Poole, Dorset.
 MISS GRACE HALL GILLIES, Drumslea, Kilkensie, Kintyre.
 MISS AGNES BERWICK GRAHAM, Dalhousie Mains, Dalkeith.
 MISS ELSIE HARPOT, 255 Liscard Road, Liscard, Cheshire.
 MISS MARGARET HARVIE, 4 Overdale Villas, Langside, Glasgow.
 ALEX. MARSHALL HENDERSON, Katrine Bank, Borgue.
 DENIS B. JOHNSTONE-WALLACE, Parkholme, Newcastle-on-Tyne.
 MISS MAGGIE KEER, Glengtye, Leswalt, Stranraer.
 MATTHEW BLACKWOOD LOCKE, Maryfield, Paisley.
 GEORGE M. M'CAIG, 98 Merry Street, Motherwell.
 JOHN FERGUSON M'CNEATH, Challock, Newton Stewart.
 MISS ANNIE MACDONALD, 66 Polwarth Terrace, Edinburgh.
 MISS MARGARET M'INTOSH, Wellwood, Bonnyrigg.
 ALEX. WHYTE NESS, 68 Albert Drive, Pollokshields, Glasgow.
 LINDSAY ROBB, Holmes Farm, Kilmarnock.
 WILLIAM C. STEVENSON, Overlochridge Farm, Stewarton.
 GEORGE D. WYLLIE, Glascock Farm, Fenwick, Kilmarnock.
 HUGH MAIR YOUNG, 12 Main Street, Newmilns.

5. The Examiners at both English and Scottish Centres were: Professor Douglas A. Gilchrist (General Dairying and Practical Butter-making); Mr. John Benson (Cheese-making); and Dr. J. Augustus Voelcker (Chemistry and Bacteriology). Their reports on the work of the candidates are appended.

6. Professor Gilchrist reports that the work generally was of a most satisfactory character, and showed distinct improvement on the previous year. It was especially noticeable that the candidates were better able to apply the scientific knowledge they had obtained in the laboratory to practical dairying and dairy farming problems. The application of a good system of book-keeping on a dairy farm is still deficient, although many of the candidates had a good general knowledge of book-keeping.

On the whole the practical knowledge obtained by the candidates on dairy and other farms was quite satisfactory. A weak point, however, was that some of the candidates, who had gained most of their practical experience on college farms, were not able to deal efficiently with problems arising on ordinary commercial farms. This criticism applies to a few of the candidates at the English Centre, and not to the candidates at the Scottish Centre, where on the whole their practical training was of a most satisfactory character.

The work again indicated that careful instruction is being given in General Dairying and Practical Butter-making at the different teaching centres, and that those centres are in close touch with the practical dairy farming problems arising in their districts. The advisory work at these centres, undertaken for the Board of Agriculture, has evidently had an excellent influence in this direction.

There was a distinct improvement in the evidence given by the candidates of capacity to impart instruction, in some cases this being of a most satisfactory character.

7. Mr. John Benson states that in his section the work of most of the candidates was very good. In Practical Cheese-making he had never had such good results. On two or three days of the examination many of the candidates had to deal with milk which was very ripe and forward in condition, but in making this into cheese they exhibited much skill, and obtained excellent results with milk which was certainly not easy to deal with. The blue-moulded and soft cheeses were this year better than usual, and especially the Wensleydale cheeses, which are at the best really difficult to make.

In the manufacture of Cheshire cheeses—though to a less extent than last year—candidates were not quite so successful as with other varieties. There was a tendency to develop too much acidity in the earlier stages, and, in consequence, a cheese possessing too close a texture was obtained.

The Examiner remarks that those candidates who had spent a considerable period on independent dairy farms were much the best in practical work. They handled the milk and curd more expertly and exhibited more confidence when dealing with milk which was a little over-ripe.

In the theory of dairying the results of the Examination, both written and oral, were good, and, on the whole, better than in recent years, though there is still room for improvement. The answers given by some candidates, though correct, were too long and wordy, while the writing was hurried and indifferent, and difficult to read.

A number of the candidates, though somewhat weak in the written answers to questions, improved their position in the

oral examination, and in consequence the percentage of passes in cheese-making was above the average.

The arrangements for carrying out the Examination at both centres were excellent, and during the whole of the eight days occupied in Practical Cheese-making the work proceeded without a hitch.

8. Dr. Voelcker reports that the work in Chemistry and Bacteriology at Reading was extremely well done. The number of failures was low, and there were several papers of more than usual excellence; in one case, indeed, practically full marks were obtained. The improvement evinced in the Bacteriological part of the subject of Examination was particularly striking, and it was clear that most of the candidates had been through a good practical course of training. On the other hand, the chief weakness shown was in respect of knowledge of elementary chemistry, this being brought out most in the *viva voce* examination, which was not, as a whole, as satisfactory as the written replies.

At the Scottish Centre the results of the Chemistry and Bacteriology part of the Examination were, Dr. Voelcker remarks, hardly as satisfactory as in former years. Several papers were quite good, but there was none of special excellence. Nor did the *viva voce* examination, as a whole, much improve the position of candidates. The chief failure was to reply to questions involving knowledge of general chemistry as apart from dairying matters in particular. The questions involving knowledge of Bacteriology were much better answered, and there had evidently been a fair amount of practical work done in this branch.

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Chairman.

16 Bedford Square, London, W.C.
October, 1914.

ANNUAL REPORT FOR 1914 OF THE PRINCIPAL OF THE ROYAL VETERINARY COLLEGE.

ANTHRAX.

THE following Table shows the number of outbreaks of disease and the number of animals attacked during each of the last six years :—

Year	Outbreaks	Animals attacked
1909	1,817	1,698
1910	1,496	1,776
1911	907	1,120
1912	743	840
1913	594	652
1914	722	796

For the proper understanding of the above statistics it must be stated that the years 1909 and 1910 are not strictly comparable with the last three years, and that therefore the figures cannot be held to prove that there was a sudden marked decline in the prevalence of anthrax in 1911. Prior to that year the diagnosis in suspected cases was in the hands of the Veterinary Inspectors to the Local Authorities throughout the country, but since the beginning of 1911 the responsibility for diagnosis has been assumed by the officers of the Board of Agriculture and Fisheries. The change in procedure was adopted because of a suspicion that errors in diagnosis were comparatively frequent, and experience has fully justified it. The difference between the number of outbreaks in 1910 and 1911 may thus be taken as mainly due to the elimination of reported cases in which the original suspicion was removed by microscopic examination of the animal's blood at the Board's Laboratory. On the other hand, the last four years are comparable among themselves, and the figures may therefore be taken to indicate that the disease declined in 1912 and 1913, and that during the past year it has notably increased.

To what this increase has been due it is impossible to say with certainty. Until a few years ago entirely false notions were current regarding the common origin of outbreaks of anthrax in Great Britain, it being very generally held that the continued existence of the disease was due to persistence of the bacilli or their spores in the soil, and that the soil infection was mainly traceable to careless and ineffectual methods of dealing with anthrax carcasses. It is obvious that if this view were correct recurrent outbreaks on the same farm ought to be the rule, or at least very common, but such is not the case. The disease frequently makes its appearance on farms with a clean history extending back for many years, and in the majority of outbreaks it promptly comes to an end with the death of one or

two animals. These facts are not consistent with persistent soil infection, but suggest an exotic source for many of the outbreaks; and, as has been pointed out in previous reports, there is a good deal of evidence to prove that the spores of anthrax are not infrequently present in imported feeding stuffs, such as oats, maize, linseed, cotton seed and the corresponding cakes.

The available information does not enable one to say whether the fluctuations in the frequency of outbreaks during the last four years have been determined by variations in the amount of such infectious materials imported and consumed; but, assuming that the figures give a fairly accurate measure of the incidence of the disease, the supposition appears more probable than any other.

Fortunately, the increase in the number of outbreaks during the past year is not serious, and, as in all previous years, the average number of animals attacked in each outbreak was less than two.

The fact that in this country anthrax so frequently breaks new ground increases the likelihood that the first case in an outbreak may be overlooked owing to lack of experience on the part of the owner or his servants. Hence, it cannot be too strongly emphasised that, however free a farm may have been from the disease in the past, anthrax should immediately be suspected and reported when a bovine animal or a horse is found dead or dies after a very brief illness for which there is no obvious cause.

GLANDERS.

The following Table shows the incidence of this disease during the last eight years:—

Year	Outbreaks	Animals attacked
1907	854	1,921
1908	789	2,433
1909	533	1,753
1910	351	1,014
1911	208	501
1912	173	314
1913	162	447
1914	97	286

The past year has been very satisfactory, as it has continued the decline which has been in progress since the present Glanders Order came into operation, viz., on January 1, 1908. Under this Order mallein is systematically employed for diagnosis in stables in which a case of the disease has been detected, and reacting horses are slaughtered, with compensation to their owners. A year ago there appeared to be good grounds for hoping that the disease would soon be stamped out altogether, but the outbreak of war has made that prospect

considerably less bright. In all the great wars of modern times, and probably in all great wars since the horse was domesticated, glanders has been the cause of great loss; and, in spite of the better command of the disease which medicine confers, it is not to be expected that the present European conflict will form any exception to the rule. If, therefore, army horses are brought back to this country at the close of the war there will be a considerable risk of a recrudescence of glanders. Before the discovery of mallein that result would have been a certainty, but fortunately the danger can now be minimised by the more accurate methods of diagnosis which are available.

FOOT-AND-MOUTH DISEASE.

In 1912 there were 83 outbreaks of this disease, in which 645 animals were attacked, and this was the largest number of outbreaks in any year since 1892. In 1913 the country was free from the disease during the first ten months, and only two outbreaks occurred during the year, viz., one in November and one in December, in which a total of 73 animals were attacked. In respect of the number of outbreaks the past year was the worst since 1892 with the exception of 1912, a total of 27 outbreaks, with 167 animals attacked, having been reported. The first outbreak occurred during the third week in February, and the last in the week ended December 19. The outbreaks were distributed in the counties of Durham (1), Worcester (1), Carnarvon (1), Lancaster (8), Lincoln (11), Kent (1), Northampton (1), and Bedford (3).

The circumstances made it probable that the outbreak of the disease in February was caused by contagion brought from Ireland, but it is understood that the inquiries instituted by the Board of Agriculture and Fisheries failed to throw any light on the cause of the outbreaks which occurred in August, September, October, and December.

It is much to be regretted that the Departmental Committee which was appointed to carry out experiments concerning foot-and-mouth disease in India failed to obtain any precise information as to the vitality of the virus outside the body, or the possibility of the contagion being carried in such materials as hay. It was unexpectedly found that the breeds of cattle which were available for the experiments in India possessed such a high degree of insusceptibility to foot-and-mouth disease that a large proportion failed to become infected even when large doses of fresh virus were injected into their veins; and, as the native sheep, goats, and swine appeared to be equally resistant, it proved impossible to determine by the use of any of these animals whether the virus contaminating such materials as hay or straw had up to any particular period retained its virulence or not.

SHEEP SCAB.

The following Table shows the number of reported outbreaks of this disease during the last six years :—

Year	Outbreaks
1909	685
1910	556
1911	434
1912	302
1913	236
1914	226

The experience of the past year is somewhat disappointing, since, as the Table shows, the number of outbreaks was nearly the same as in 1913, whereas each of the previous five years marked a notable decline in the prevalence of the disease. That something like this might happen was suggested in last annual report; since it was to be expected that special difficulty, probably necessitating special measures, would be encountered in stamping out the disease from the hill farms in Wales, the Scottish Highlands, and the border counties of England and Scotland, to which the disease is now mainly confined.

The present position with regard to sheep scab is in reality much better than the above Table indicates; for during the first four years of the present century the average annual outbreaks reported exceeded 1,500.

SWINE FEVER.

The following Table shows the number of outbreaks of this disease confirmed during each of the last seven years :—

Year	Outbreaks
1908	2,067
1909	1,650
1910	1,598
1911	2,466
1912	2,920
1913	2,573
1914	4,356

The control of swine fever was taken over from the Local Authorities in the latter part of 1893, and since then the disease has been dealt with directly by the Board of Agriculture and Fisheries. The first complete year of the Board's operations in connection with the disease was therefore 1894, and in that year the total number of outbreaks confirmed was 5,682. Within three years afterwards (1897) the outbreaks had fallen by 50 per cent., viz., to 2,155. In 1905 the disease touched its lowest point, the total confirmed outbreaks for the year having been only 817. Two years later they had risen to 2,336. The detailed figures for the later years are given in the Table.

The outstanding facts with regard to the incidence of the disease are (1) that during the first ten years of the Board's operations there was such a marked reduction in the number

of outbreaks as to encourage the hope that the disease might actually be stamped out, and (2) that the experience of the second decade of the Board's *régime* has destroyed this hope, or at least made it clear that the disease cannot be eradicated by the measures that have been employed against it during that period. The figures for the last year are specially disappointing, since they show a recrudescence of the disease which makes the position worse than it has been at any time since 1896.

That swine fever could have been stamped out, and that it would even now be possible to stamp it out, is scarcely open to doubt, but it is far from certain that pig-owners would tolerate over a period of years the "cattle-plague measures" which would be necessary to secure the desired result, or that the cost of eradication would be justified by the ultimate saving.

At any rate, there now appears to be nearly general agreement that the attempt to stamp the disease out must be frankly abandoned, and that the Board of Agriculture should, at least in the immediate future, be content with measures designed to hold the disease in check and mitigate the losses which it inflicts on breeders and feeders of pigs.

During the past year the Board of Agriculture has begun to employ on a considerable scale the serum treatment, the advantages and disadvantages of which were explained in the previous annual report. The only points which need be here repeated are that serum treatment, however extensively it might be practised, could never be expected to stamp out this disease; and that if it is to be effectual in preventing the spread of the disease, it must be accompanied by severe restrictions on the movement of the animals subjected to the treatment. It appears to be doubtful whether owners have realised that the treatment of outbreaks by the free use of serum is not a substitute for restrictions on movement of suspected pigs, but an alternative to slaughter with compensation. It can scarcely be questioned that the latter plan of dealing with outbreaks is in general the more satisfactory from the owner's point of view, but from the point of view of the State it is not a method that can be justified except when eradication of the disease is the object aimed at. It might almost be said that the measures enforced against swine fever during the last twenty years have been equivalent to a system of insurance, under which owners are paid a large part of the losses which are caused by swine fever, while the State pays the whole of the premium.

It is not certain that the new method of dealing with outbreaks, involving as it does the withholding of compensation, will in the end prove more acceptable to the owner than

the old one, and it is even more doubtful whether it will suffice to prevent a further spread of the disease.

TUBERCULOSIS.

In the previous annual report reference was made to the Tuberculosis Order which came into force on May 1, 1912, and which made it obligatory for owners of cows to give notice to the Local Authority regarding any animal suffering from tuberculosis of the udder, indurated udder, or other chronic disease of the udder, or from tuberculosis with emaciation. This Order was revoked as from the 1st July last, at which date a new Order (Tuberculosis Order of 1914) came into operation. In consequence of the outbreak of war this latter Order was suspended on August 6. The most important changes introduced by it were in relation to the method of valuation with a view to compensation, and the conditions or symptoms which make it obligatory on an owner to give notice of the existence of tuberculosis disease in an animal in his possession or under his charge. Whereas the first Order took cognisance only of tuberculosis in cows, the provisions of the second extend to all bovine animals, irrespective of age or sex. Furthermore, in the new Order the words "emaciation due to tuberculosis" are substituted for "tuberculosis with emaciation"; and, what is more important, notification is required in the case of "any bovine animal which is suffering from a chronic cough and showing definite clinical signs of tuberculosis."

The first year under the operation of the Tuberculosis Order of 1913 was completed on April 30, 1914, and the Board of Agriculture and Fisheries have been good enough to furnish the writer with information showing the number of cases that were dealt with by the Local Authorities in Great Britain during this period.

The most important facts are shown in the following Table:—

Number of premises		Number of cows suffering from tuberculosis of the udder, tuberculosis with emaciation, or giving tuberculous milk, in respect of which notice of intended slaughter was given
England	4,943	5,359
Wales	259	272
Scotland	1,043	1,107
Total	6,245	6,738

These figures are very remarkable because of the extent to which they fall below any estimate that might have been based on information previously available regarding the occurrence of tuberculosis among British cattle. The total number of cows and heifers in milk or in calf on June 4, 1912, was 2,695,391, and the figures in the Table show that the proportion of such animals dealt with under the Order was almost exactly 1 in 400. It would be very good news if one could accept this as a true measure of the occurrence of cases of tuberculosis disease of the udder, and of tuberculosis with emaciation among the cows and heifers in this country—first because it would be gratifying to know that the loss inflicted by the disease on owners is so small, and, secondly, because it would indicate that the number of cows yielding milk dangerous to human beings is far less than has hitherto been supposed. Unfortunately, the figures cannot be so accepted. The proper interpretation of them is that during the first year of its operation the provisions of the Order with regard to notification were ignored by the majority of owners. On a moderate estimate, probably not less than 1 per cent. of the milch cows and heifers in Great Britain in the course of twelve months develop symptoms which would bring them under the provisions of the Order.

That the majority of cases were not notified is also made clear from the small proportion of premises from which cases were reported, and by the fact that in the immense majority of instances not more than one animal was notified during the year from the same herd. Thus, it will be observed that out of the total of 6,245 premises (or herds) from which suspected tuberculous disease was notified there cannot have been more than 493 with more than one case in the year.

It was, of course, not to be expected that during the first year of its operation the Order would lead to the slaughter of every animal affected with the tuberculosis to the extent specified in its provisions, as many owners were doubtless ignorant of the duty to report suspicious cases, which was for the first time laid upon them.

But even when full allowance is made for this, the facts suggest that there has been widespread evasion of the law. This is greatly to be regretted—(1) because there is now general agreement that the milk of such cows as had to be reported under the Order is dangerous for human beings, and (2) because to keep such animals in a herd is certain to increase the owner's losses from tuberculosis.

CONTAGIOUS ABORTION.

In the month of May, 1912, a circular was issued to members of the Society calling attention to the increased possibilities of

dealing successfully with outbreaks of contagious abortion in cows which had been opened up by the discovery of a new method of diagnosis—viz., the agglutination test—and intimating that the Royal Veterinary College was prepared to advise and assist owners of herds in which the disease existed.

The object in view in making this offer was to obtain the means of testing on a large scale, and in the conditions of actual practice, the value of a plan of dealing with outbreaks which was based on laboratory experiments, and which had already been tried with encouraging results in a few herds. Briefly stated, the plan is—(1) to employ the agglutination test whenever a case of abortion occurs, in order to determine whether the cow has been infected with contagious abortion or has slipped her calf from some other cause; and (2), when the existence of contagious disease has thus been proved, to test the entire stock in order to ascertain the extent to which the infection has already spread. Common sense suggests that this knowledge is essential before one can give intelligent advice regarding the best method of dealing with an outbreak.

The notice issued to members has brought a large number of applications for advice and assistance, and has entailed a great amount of work on the part of the Research Staff at the College. Thus, during the past year 3,632 samples of blood have been tested, and the animals from which these samples were taken were distributed in 132 different herds.

It will be obvious that the inquiry is being carried out on a scale that will amply justify conclusions as to the value of this method of dealing with the disease, but some time must still elapse before the whole results can be collected and tabulated, especially as it will probably not be safe to conclude that the disease has been eradicated from any herd until nine months or a year has elapsed since the last case of abortion.

Already, however, the inquiry has proved that the plan of testing, followed by elimination or strict isolation of the reacting animals, can be relied upon to arrest an outbreak, provided the owner has not neglected to seek advice as soon as one or two cases of abortion have occurred.

Unfortunately, as was to be expected, in a considerable proportion of cases in which advice was sought it was found that abortions had been occurring in the herd for months or even years, and in nearly all such cases the general test of the herd has revealed such a large proportion of infected animals as to make eradication impossible either by disposing of these or by isolating them.

It cannot be too strongly emphasised that the difficulty of dealing with an outbreak increases with every day during which an infected animal remains in the herd, and that it is

therefore of the utmost importance to have the disease dealt with promptly. A point closely connected with this is the necessity for regarding every case of abortion in a herd as of the contagious kind until the contrary has been proved by the agglutination test, unless there is clear evidence of some other sufficient cause, such as gross injury of the cow. It is even doubtful whether this last exception should be allowed, for in more than one instance the test has proved the infection of an animal which had aborted after alleged injury.

In a number of cases the testing of newly-purchased cows has revealed the fact that they had been infected in the possession of their previous owner. No one who owns a valuable herd that is free from abortion should admit into it an animal, whether bull, cow, or heifer, without having its blood tested, unless he has personal knowledge that the herd from which the new animal comes has been without any case of abortion for some years.

Members of the Society are still invited to apply to the College for advice and assistance in dealing with the disease, and especially those in whose herds it has only recently made its appearance.

JOHNE'S DISEASE.

Treatment.

During the latter half of 1912 a number of animals suffering from Johne's disease were experimentally treated with different drugs, but without any obvious improvement, except in the following case :—

Case 1.—This was a Devon cow, five or six years old, which, at the time when treatment was begun, on August 12, was in an extremely emaciated condition (see Fig. 1) and suffering from profuse diarrhoea. That the case was actually one of Johne's disease was proved by the detection of the bacilli of that disease in a particle of the mucous membrane removed from the posterior part of the large bowel.

The treatment consisted in the daily administration of one ounce of a mixture having the following composition :—

Ferrous sulphate 5 oz.
Dilute sulphuric acid 5 oz.
Water to 1 pint.

On August 15 the animal's condition seemed rather worse : it was very weak, the appetite was checked, and the extremities were cold. The administration of the medicine was therefore suspended.

On August 21 there was a little improvement, and the medicine was resumed and continued until September 30.

Up to the end of August there was no marked improvement in the general condition and the diarrhoea continued, but after



FIG. 1.—Case I, before treatment. Aug. 12, 1913.

that the appetite improved and the faeces gradually became firmer.

In the month of October it was obvious that the animal was less emaciated, and during the next three months it steadily improved in condition. The extent of the improvement can be estimated by comparing Figs. 1 and 2, the latter of which shows the appearance of the animal on January 27, 1914.

Unfortunately, owing to the absence of a weighing bridge, the cow was not weighed until November 27, 1912, at which date a good deal of weight had already been recovered. The weight on that date was 54 st. 5 lb., and the increase subsequently was as follows:—

December 22, 1913	57 st. 0 lb.
January 17, 1914	57 " 11 "
February 14, 1914	60 " 7 "
February 28, 1914	60 " 13 "
March 14, 1914	62 " 5 "
April 14, 1914	63 " 0 "
May 23, 1914	64 " 12 "

In view of the steady increase in weight shown above, and the absence of diarrhoea or any other symptom suggesting Johne's disease, it appeared to be possible that the animal had been completely cured; and, inasmuch as the cow was now prime fat, there was some temptation to have her killed for the butcher. Fortunately, however, it was thought better to prolong the experiment by keeping the cow alive, and subsequent events showed that in spite of the really remarkable improvement, amounting to an apparent cure, the cow still remained infected with Johne's disease. During the last week of May the diarrhoea returned, and when the cow was weighed on June 6 it was found that there had been a loss of 3 st. 3 lb. in weight in a fortnight. During the next fortnight the loss was no less than 10 st. 13 lb. In the following month there was actually a slight increase in weight, but nevertheless it appeared obvious that the animal might soon die and it was killed on August 2 last. The *post-mortem* proved that the animal's rapid emaciation had undoubtedly been caused by Johne's disease of the intestine, throughout which the bacilli were found to be very numerous. The cow had also been the subject of tuberculosis, the lungs being extensively affected, while lesions were also present in the liver. The fact is interesting, as showing that infection with Johne's disease does not protect against subsequent infection with tuberculosis or *vice versa*. It is possible that the tuberculous disease from which the animal suffered contributed to its loss of condition during the last three months of its life, but it is quite certain that the diarrhoea and rapid emaciation were mainly due to Johne's disease.



FIG. 2. Same animal as FIG. 1, after treatment. Jan. 27, 1914.

It ought to be stated that the final rapid progress of the disease took place in spite of a second course of treatment with the iron and acid mixture, which was begun on May 18, soon after it was observed that the animal was again scouring.

In view of the apparent success of the treatment to which the above described cow was submitted, it was resolved to try the effect of sulphate of iron, with or without the acid, on a number of other advanced cases of Johne's disease. In some of these the treatment failed entirely, but as a rule it seemed to have a beneficial result, although hardly in any case was the improvement so sudden and marked as in the case already described. By way of illustrating the various effects of the treatment, the condensed history of three other cases may be given.

Case II.—This was a cross-bred cow of rather a bad type, aged about six years. She was admitted on December 5, 1913. There was marked diarrhoea and the animal was in rather poor condition. The diagnosis was confirmed as in the previous case. Her weight on December 20 was 53 st. 2 lb., and treatment with sulphate of iron was begun on that date.

During the following fortnight the cow became very weak and emaciated, and the appetite was bad. During the third week of January there was a slight improvement in the character of the faeces, but after that diarrhoea set in again, and it was thought advisable to stop the administration of the sulphate of iron on January 26.

On the following day treatment was commenced with powders containing catechu and chalk. Her weight on January 30 had fallen to 41 st. 8 lb. During February improvement set in, although the diarrhoea still continued; and on the 25th treatment was begun with the iron and acid mixture, alternated with astringent powders. On March 4 the iron and acid mixture was replaced by sulphate of iron alone. There was more or less diarrhoea until towards the end of April, when the faeces became quite normal. The following figures afford the best indication as to the animal's improvement between February and June :—

February 28	41 st. 3 lb.
March 13	45 „ 1 „
March 29	49 „ 10 „
April 11	48 „ 11 „
April 25	52 „ 12 „
May 9	55 „ 7 „
May 23	54 „ 11 „
June 6	59 „ 0 „

In the month of June the animal had a serious relapse. The diarrhoea returned, and the weight fell nearly 7 stones in



FIG. 3.—Case II, after treatment. Nov. 23, 1914.

the course of a fortnight. Treatment was begun with sulphate of iron alone on June 17, and continued until July 23, after which the diarrhoea ceased and the general condition began to improve. It is a remarkable fact that during this latter treatment visible shreds of mucous membrane were passed with the faeces, and on microscopic examination these were found to contain large numbers of *Johne* bacilli.

Since July last the improvement in condition has been steadily maintained, as is evidenced by the following figures:—

July 4	47 st. 4 lb.
July 18	50 „ 9 „
August 14	53 „ 7 „
August 28	52 „ 3 „
September 11	52 „ 3 „
September 25	53 „ 10 „
October 9	53 „ 10 „
October 23	54 „ 10 „
November 5	58 „ 3 „
November 20	59 „ 4 „

Fig. 3 shows the appearance of the cow at the time of writing (November 20).

Case III.—This was a Jersey cow, 3 years old, suspected to be affected with *Johne's* disease in consequence of diarrhoea and rapid loss of condition after calving. The diagnosis was confirmed by rectal examination, and treatment with iron and sulphuric acid was begun on December 10, 1913. On November 27 the animal's weight was 44 st. 4 lb., and by this time the faeces were very loose and on occasion almost watery. The treatment was stopped on December 19, and it was found that on December 20 the weight was 46 st. 8 lb., representing a gain of 2 st. 4 lb.

During the next three weeks the condition of the animal improved, and by the middle of January the diarrhoea had quite disappeared. The improvement continued, and on March 14 the weight was found to be 50 st. 4 lb. About a fortnight later, however, diarrhoea again set in, and this was treated by the administration of sulphate of iron without acid. After a few weeks there was marked improvement, and the treatment was discontinued. On June 6 the weight was 51 st. 9 lb. The condition of the animal at this time can be judged from the accompanying photograph (Fig. 4), which was taken on June 10.

On June 20 the weight had increased to 52 st. 8 lb. About July 9 the appetite began to fail, there was occasional diarrhoea, and on July 31 treatment with sulphate of iron alone was again started and continued for six weeks. In spite of that the cow

steadily lost condition, as will be seen from the following figures:—

July 18, 1914	50 st. 3 lb.
August 14, 1914	45 „ 7 „
September 11, 1914	41 „ 0 „
September 25, 1914	35 „ 2 „

The cow was killed on September 28, and the *post-mortem* showed no other disease except Johne's disease. The naked-eye evidence of the latter disease in the bowel wall was not well marked, and only a moderate number of bacilli were found on microscopic examination of material taken from different parts of the intestine.

Case IV.—This is given as an instance in which the treatment appeared to have no beneficial effect whatever.

The animal in question was a shorthorn cow, aged three years. At the time of admission she was in a very poor condition, but the faeces were nearly normal and the appetite was good. Her weight on January 23, 1914, was 62 st. 2 lb. An attempt to confirm the diagnosis of Johne's disease by rectal examination failed.

Treatment with the iron and acid mixture was begun on January 31 and continued up to the time of the animal's death. In spite of this treatment the cow steadily lost condition; thus, on February 14 her weight was 50 st. 2 lb., and a fortnight later it was 39 st. 7 lbs. By this time there was continual diarrhoea, and an attempt to check this by the administration of *nux vomica*, catechu, and chalk failed. Eventually the appetite became very poor, and, as her condition appeared to be hopeless, the cow was killed on March 17.

The *post mortem* examination showed extensive evidence of Johne's disease in both the large and small intestine, and on microscopic examination the bacilli of Johne's disease were found to be very numerous present in the mucous membrane.

As partly explaining the rapid course of the disease in this animal, it ought to be noted that she calved while under treatment, namely, on February 14, and that the calf was allowed to suck its dam for a fortnight, after which it was put on a foster-mother. The calf appeared to be quite healthy and it is still alive.

In order to appreciate the effect produced by the treatment adopted in the first three of the cases just described it must be remembered that the disease had reached an advanced stage before the treatment was begun, and that on the basis of a large experience one would have been justified in predicting a fatal ending within a few weeks or months if the disease had been allowed to run its natural course. It may indeed be said that, without any exception, all untreated cases rapidly proceed



FIG. 4. Case III, after treatment June 10, 1914.

from bad to worse when once the stage of emaciation and diarrhoea has been reached:

There is no doubt that as a rule the treatment described above has beneficial effects, since it arrests the diarrhoea and loss of condition, and markedly prolongs the animal's life. Sometimes, as in Cases I. and II., it may even appear to have effected a complete cure. It must, however, be admitted that in some cases the treatment appears to be without any influence on the course of the disease, and that in the majority of cases it merely prolongs life without enabling the animal to recover its lost condition to any important extent.

When all the facts are taken into consideration, one cannot advise that treatment of animals at an advanced stage of Johne's disease should be attempted, because, as regards the immediate results, it is as a rule unlikely to prove profitable, and still more because of the danger attaching to such animals in the way of spreading the disease unless they are rigorously isolated.

DIAGNOSIS OF JOHNE'S DISEASE.

During the past year a material termed "Johnin" has been prepared on a considerable scale at the College and supplied on demand, free of charge, for testing animals suspected of Johne's disease. Johnin is prepared from artificial cultures of the bacilli which are the cause of the disease, and it is employed in exactly the same manner as tuberculin. It was hoped that it might prove to be a specific test for Johne's disease, but, unfortunately, it has been found that animals free from this disease but affected with tuberculosis may also react to it. This fact places a great difficulty in the way of employing Johnin for the detection of Johne's disease in a herd that is not free from tuberculosis, and a further difficulty is created by the long period which may elapse after infection before an animal will react. Nevertheless, during the past two years in a number of herds in which the disease had caused serious losses great improvement has been effected by repeated testing and elimination or isolation of the animals discovered to be infected.

Members of the Society who have reason to suspect the existence of the disease among their animals may obtain advice and assistance in dealing with it on application to the College.

JOHN MCFADYEAN.

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London, N.W.

ANNUAL REPORT FOR 1914 OF THE CONSULTING CHEMIST.

THE attention of the Chemical Department has been much occupied during the year with the consideration of the affairs of the Woburn Experimental Station, the much increased work of which calls for larger support.

Owing to the numerous facilities provided throughout the country for the obtaining of analyses at cheap rates, there is not now the same call as in earlier years for the exercise of such analytical privileges as the R.A.S.E. gives to its Members, though, in any case presenting more than usual difficulty, or where an authoritative decision is required, the Society's Laboratory still holds its place and function. It is all the more desirable, therefore, that support be given to the scientific side of the Society's work as represented at the Woburn Experimental Station where investigations of practical utility to Agriculture are constantly being undertaken.

In this connection reference must be made to the death, early in September, 1914, of Mr. H. M. Freear, who for fourteen years had been resident at Woburn as my assistant, and had charge of the Laboratory and Pot-culture Station. Mr. Freear was a devoted and able worker, and, by the deep interest which he took in the work at Woburn, rendered valuable and lasting service to the Society.

The number of samples sent by Members to the Society's town Laboratory during the year was slightly in excess of that of 1913, the numbers being 436 as against 410 in 1913. To this must be added 214 samples of Milk and 60 samples of Cider and Perry analysed in connection with the Society's Show at Shrewsbury.

Reference to the detailed lists given at the end of the yearly reports would show that in 1914 there has been a considerable increase in the number of samples of cereals examined; these were mostly "offals." A notable increase also was shown in the number of waters analysed, 85 samples in all being sent during the year.

The chief features of the year were the adulteration of offals, and, towards the latter half of the year, the stoppage of the regular supplies of potash salts from abroad.

Of new materials coming on the market there is nothing to be specially recorded, but of those previously used, though not to a large extent, one feeding-stuff, palm nut cake and meal, has come much more prominently into use. Up to the present, palm nut meal has had only a limited use in this country. A certain

amount of it has been employed in the manufacture of compound cakes, but the main part has been exported to Germany, where its use, chiefly for milking cows, has been much more appreciated than in this country. This outlet now being stopped through the war, there is every reason why both palm nut cake and cocoanut cake should be extensively and advantageously used here, inasmuch as they are excellent foods, more especially for dairy stock. One inconvenience attaching to them is that they do not keep as well as do linseed and cotton cakes, and that there is a tendency for them to turn rancid.

Soya-bean seems not to have increased in favour among practical feeders of stock, and but few samples of it have been received.

It is satisfactory, however, to record that "Bastol" and similar "prepared sawdust" compounds sold as "feeding materials" seem to have disappeared from the market.

A considerable rise in the price of linseed and cotton cakes in the early part of the year no doubt drew attention to the further use of home-grown foods, and, in particular, wheat and other offals.

Reference has been made in earlier reports of mine to adulteration practised with offals. A considerable improvement followed this mention and the taking of action, in not a few cases, under the Fertilisers and Feeding Stuffs Act. By these means some of the grosser forms of adulteration, as, for example, admixture with rice-husk, sawdust, gypsum, &c., passed out of notice. But there appears to have been of late a recrudescence of adulteration, and several cases have been brought to light where adulteration has been again practised. This has taken the form of mixing, with the wheat offals, offals produced from barley and oats. A further practice has grown up of selling, under such well-known names as "Sharps," "Middlings," "Toppings," &c., what is practically little more than "flour" of inferior value with little or none of the "bran" or husk. It is, no doubt, very hard to discriminate between the different products of the milling of wheat; for, while bran is fairly understood as being the coarsest of the offals, and as containing the most husk, between the other offals no clear line can be drawn. In one district one name will be used, and in another a different name for one and the same article.

In all these offals—which should be the skin or bran of the wheat, more or less finely ground according to the method of preparation employed—a certain amount of the starchy portion, or "flour," is still attaching. But the purchaser of offals for pig-feeding and the like does not buy these for the sake of the starch contents, but for the bran with its more nitrogenous and mineral ingredients, and it may fairly be claimed that he

has a right to expect this, and not the flour. Moreover, there is reason to believe that a good deal of damaged flour, or flour that is not fit for baking use, is thus disposed of under the name of "offals."

I have conducted some trials with different samples sent to me, and have compared them by carefully washing out the starch and estimating the amount of husk left. In doing this I have found very great differences to occur. In a good sample of "sharps," for example, I found, by proceeding in this way, 45 per cent. of husk remaining, while in another sample there was 25 per cent. only.

"In 'Toppings' I found in a moderate sample, itself somewhat 'floury' in appearance, 30 per cent. of husk, while others contained only .63 per cent. or none at all. In 'Middlings' similarly I have found 8 per cent. only and none at all. The last named was a sample sold under the description 'Italian Middlings.' It is clear that, hard though it may be exactly to say where to draw the line and what figure to give as a minimum for the amount of husk a milling offal should contain, it will be necessary to impose some condition and put a stop to the practice that has been described.

In my last year's report I dealt at considerable length with the different kinds of potash salts which were brought to this country from the Stassfurt Mines of North Germany, and were used here in agriculture. In particular, I endeavoured to remove some misapprehensions which had been formed as to the nature and composition of kainit. Writing now, twelve months later, agriculturists find themselves in a position where the entire supply of these useful fertilisers has been cut off owing to the outbreak of war. There still exist, to a certain extent, stocks in this country, but these are not large, and, what there are, will be mainly required by the manufacturers of artificial manures, so that the farmer will practically find himself unable to get any of them. This must necessarily be severely felt, especially by farmers on light lands where frequently potash is a necessity. Attention is therefore being turned to other possible sources of potash supply. Suggestions have been made that the burning of twigs, hedge-trimmings, &c., will supply a certain amount of potash, also that sea-weed might be collected and burnt, thus reviving the old practice of kelp-burning. But these methods, though useful enough where they can be economically practised, are not likely to be of general application, and would, at best, go but little way to supply the potash required by the country.

So far as is known, there do not exist elsewhere than in North Germany any considerable natural deposits of potash salts, though recently there has been talk of some being found

in Spain. In parts of India the soil, especially that around the sites of old villages, is found to be impregnated with potash salts, chiefly the nitrate (nitre), and the natives show great ingenuity in extracting the salt by simple means of lixiviation with water and subsequent crystallisation, and in separating the nitre from the impurities that occur with it. The nitre so extracted is mainly used for the manufacture of gunpowder, and is, speaking generally, too costly to use as a manure in comparison with other salts of potash. No doubt, however, a certain amount will be set free in this way, though at enhanced prices. In the manufacture of beet-sugar also a certain amount of potash salts is obtained, as mentioned in last year's Report. Further, there occur in different parts of the globe minerals such as felspar, phonolit, alunit, &c., in which potash occurs in the form of double salts, mainly silicates, and in very insoluble form, but from which it might be possible to extract the potash by chemical means. In Canada, for example, occur considerable supplies of such minerals which may contain from 8 to 10 per cent. of potash. So long as the potash mines in North Germany were available, it did not pay to extract the potash from these refractory minerals, but now that the Stassfurt supplies have ceased for the time, doubtless attention will be turned to these and other possible sources. In this connection it might be well to say that experiments with phonolit and ground felspar, both of them very finely ground, were made a few years ago at the Woburn Pot-culture Station, but failed entirely to show that the direct use of these minerals was productive of any good, owing, no doubt, to the very insoluble form in which the potash occurs. In the meantime the only really available materials by which potash may be supplied in sufficiency for the needs of a crop will be found in farmyard manure and in Peruvian guano. The latter frequently contains quite considerable amounts of potash salts ranging, say, from 2 to about 4 per cent. of pure potash (K_2O).

It is natural to ask what other supplies, either of feeding stuffs or fertilisers, will be similarly affected by the war. So far as I have been able to ascertain, there is not likely to be in other directions any immediate shortage. Feeding stuffs generally have risen in price, though, as yet, this increase has not been above 10s. a ton, and so long as the trade routes remain open there would appear to be no difficulty in their being still obtained. At the same time one may expect that offals will be used more freely.

As regards fertilisers, manufacturers of artificial manures appear to have considerable stores of the raw phosphatic materials, and no great interference with their continued supply need be looked for. Of basic slag, however, there is likely to

be a decided shortage, as it has been usual to import a considerable quantity of this material from abroad.

Potash salts have already been dealt with, and, as regards nitrogenous materials, the supply of sulphate of ammonia is plentiful and likely so to continue, as there is no longer the considerable export to Germany which existed previously. Consequently the whole supply made in this country is available for use, and the price has been very much lowered in consequence. Nitrate of soda still continues to come in, but the price of it is at present high in comparison with sulphate of ammonia.

Following my usual practice, I now comment on particular points brought out by my examination of the samples submitted to me during the year.

A. FEEDING STUFFS.

At the close of 1913 the respective prices for linseed cake and cotton cake were 7*l.* 12*s.* 6*d.* per ton and 5*l.* 7*s.* 6*d.* per ton ex. mill. There was not much change in these during the earlier months of 1914, but about June the price of linseed cake went up to 7*l.* 17*s.* 6*d.* and 8*l.* a ton. During August prices were still high, reaching, first, 8*l.* 5*s.* and 8*l.* 12*s.* 6*d.* per ton, and then 8*l.* 15*s.* and 9*l.* 7*s.* 6*d.* per ton for linseed cake, with 5*l.* 17*s.* 6*d.* to 6*l.* per ton the price for cotton cake. In September and October these prices declined a little to 8*l.* 15*s.* and 5*l.* 5*s.* per ton respectively, but in November there was again a slight rise to 8*l.* 15*s.* and 9*l.* per ton for linseed cake, with 5*l.* 10*s.* and 5*l.* 15*s.* per ton for cotton cake.

These prices naturally led to a falling off in the use, more particularly of linseed cake, and the replacing of it by other foods, compound cakes being largely used instead. It is satisfactory, however, to record that, so far as the samples of linseed cake and cotton cake submitted to me by Members were concerned, there was no clear instance of inferior quality or adulteration.

1. *Decorticated Cotton Cake.*

This has been very variable in quality. Occasionally good samples have been met with, at other times only hard inferior cakes.

	A	B	C	D
Moisture . . .	8.17	7.44	9.49	
Oil	19.91	19.07	4.98	6.92
¹ Albuminoids . .	39.75	40.87	37.94	20.94
Carbohydrates . .	25.34	25.58	{ 26.69	
Woody Fibre . . }			{ 16.16	
² Mineral matter .	6.83	7.04	4.74	
	100.00	100.00	100.00	
¹ Containing nitrogen	6.36	6.54	6.07	
² Including sand .	.34	.20	.05	

"A" and "B" came from the same purchaser, and were exceedingly high in oil. The cake was bought from a dealer in the Midlands, the price being 9*l.* 2*s.* 6*d.* per ton delivered. It was said to be Peruvian decorticated cotton cake. "C," on the contrary, was a dark-coloured, old cake, containing far too much woody fibre to be properly called "decorticated." "D" was even worse, though guaranteed to contain 8 per cent. of oil and 40 per cent. albuminoids, and costing 8*l.* 12*s.* 6*d.* per ton delivered, an absurd price for a cake of such quality.

2. Palm Nut Cake and Meal.

The following analyses, though not made during the year, are given for information as showing how the quality of palm nut cake and meal may vary according to the extent to which the oil has been expressed. In the case of meal it sometimes happens that the oil is extracted by chemical solvents, and that, consequently, very little oil is left in the meal.

	A	B	C	D
	Cake.		Meal.	
Moisture	7.82	10.35	10.84	10.95
Oil	14.60	7.47	12.49	5.79
*Albuminoids	17.06	17.75	14.06	18.00
Digestible carbohydrates	44.66	44.81	43.56	53.04
Woody fibre	12.17	15.57	15.32	8.42
*Mineral matter	3.69	4.05	3.73	3.80
	100.00	100.00	100.00	100.00
*Containing nitrogen	2.73	2.84	2.25	2.88
*Including sand . . . . .	.50	.70		.40

3. Cocoa Nut Cake.

Analyses of samples of this were as follows:—

	A	B
Moisture	9.76	
Oil	16.87	6.09
*Albuminoids	18.94	20.00
Digestible carbohydrates	39.84	
Woody Fibre	8.92	
*Mineral matter	5.67	5.57
	100.00	
*Containing nitrogen	3.03	3.20
*Including sand	1.24	.44

4. *Barley Meal.*5. *Thirds.*

As remarked, adulteration of meals and offals is by no means uncommon. The following are cases in point :—

	A Barley Meal.	B "Thirds."
Moisture	14.82	
Oil	1.82	2.79
Albuminoids	9.00	10.56
Starch, digestible fibre and woody fibre	70.40	
Mineral matter	3.89	6.33
	<hr/> 100.00	
Containing nitrogen	1.44	1.69
Including sand and silica	2.28	1.39

"A" was an impure sample containing rice-husk, oats and some wheat. It was not clean and contained excessive siliceous matter. It cost 14s. per 12-stone sack, delivered.

"B" was not genuine, either, but was much mixed with palm nut husk.

6. *Pig Meal.*

The idea still prevails that *anything* is good enough for feeding to pigs; hence, under the name of "pig meal" are found many strange mixtures. In one case that came under my notice, a "pig meal" was found to consist of refuse grains with a quantity of coal and coal ashes, as well as a lot of common salt, the latter material being specially harmful to pigs.

B. FERTILISERS.

1. *Basic Slag.*

Speaking generally, this fertiliser has been found to be up to quality, but there is, notwithstanding, constant need of checking samples. The following is a case in point, the material costing 41s. 3d. per ton, delivered :—

	Per cent.
Total Phosphoric acid	11.47
equal to tribasic phosphate of lime	25.06
Fineness of grinding	86.04

This contained only 25 per cent. of total phosphates, though it had been guaranteed to have 26 per cent. phosphates that were soluble in citric acid alone. The price worked out at 1s. 8d. per unit of phosphate of lime (total), which is much in excess of the market price.

2. Bone Manure (so-called).

Moisture	22.93
¹ Organic matter and water of combination	38.89
Monobasic phosphate of lime	1.98
equal to tribasic phosphate of lime (bone phosphate) rendered soluble by acid	(3.11)
Insoluble phosphates	10.33
Sulphate of lime, alkaline salts, &c.	20.25
Insoluble siliceous matter	5.62
	<hr/> 100.00
¹ Containing nitrogen	2.70
equal to ammonia	3.28

This was sold in Cheshire at the price of 5*l.* 10*s.* per ton. It was not bone manure at all, but refuse material, and excessively dear at the price.

3. Soot.

It has been previously pointed out how variable soot may be in quality; this is accentuated by the fact that soot does not come under the Fertilisers and Feeding Stuffs Act, so that, unless bought with a guarantee, there is no security as regards its quality.

	A	B	C
Moisture	12.23		
¹ Organic matter	34.91		
Oxide of iron, &c.	40.61		
Sand	12.25	18.89	8.27
	<hr/> 100.00		
¹ Containing nitrogen	1.74	1.46	5.17
equal to ammonia	2.11	1.77	6.28

"A" was bought in Bedfordshire as "Best Soot," and was of inferior quality, being low alike in organic matter and in ammonia.

"B," which also came from Bedfordshire, cost 45*s.* 6*d.* per ton, delivered, and was likewise of inferior quality.

"C," on the contrary, which cost 50*s.* per 100 bushels in Huntingdonshire, was an exceptionally rich and good sample.

4. Manure Cake.

¹ Organic matter and moisture	94.80
² Phosphoric acid	1.93
³ Alkalies, lime, &c.	4.04
Sand	1.3
	<hr/> 100.00
¹ Containing nitrogen	3.74
equal to ammonia	4.54
² Equal to phosphate of lime	2.25
³ Containing potash (K ₂ O)	1.21

This cost 4*l.* per ton, and was intended for use for manuring in Kent. It was unusually free from sand and dirt, and was quite worth the price.

5. *Sud-cake.*

This—a refuse of wool-washing—has a certain manurial value. The following is the analysis of a material of this kind which was obtainable in Yorkshire for a few shillings a ton. It was quite worth getting :—

Moisture	2.44
¹ Organic matter	32.21
Oxide of iron and alumina	6.84
Phosphoric acid . . . . .	.30
Lime . . . . .	.28
Alkalies, &c. . . . .	.59
Insoluble siliceous matter	57.34
	<hr/> 100.00
¹ Containing nitrogen	2.02
equal to ammonia	2.52

6. *Kiln Dust.*

Moisture	7.66
¹ Organic matter	78.59
Lime . . . . .	.62
² Phosphoric acid	1.83
Alkalies, &c.	5.42
Sand	5.88
	<hr/> 100.00
¹ Containing nitrogen	5.24
equal to ammonia	6.36
² Equal to phosphate of lime	4.00

This was obtainable locally (in Shropshire) at 45*s.* per ton, and could not be called dear. Such material is valuable, especially on light land, for the sake of the vegetable matter which it contains, as well as for the Nitrogen supplied.

7. *Farmyard Manure.*

Material of this kind must vary very greatly, especially when it has to be obtained by purchase. The following analyses will

be interesting as showing the differences which may occur in purchased manure :—

	A	B
	"Best."	"Mixture."
Moisture	55.00	39.20
Organic matter	22.80	8.65
Phosphoric acid . . . . .	.45	.31
Lime	2.21	1.75
Oxide of iron and alumina	2.56	4.20
Alkalies, &c.	1.51	.66
Insoluble siliceous matter	15.47	45.23
	100.00	100.00
Containing nitrogen . . . . .	.74	.31
equal to ammonia . . . . .	.90	.38

"A" was called "Best Manure" and cost—in Kent—delivered on the farm, 6s. 6d. per ton.

"B" was called "Mixed Manure," and was brought by barge, costing on the same farm 4s. 3d. a ton.

"A" was composed mostly of straw and horse-droppings, while "B" did not contain much dung, but was mainly sweepings, scavengerings, &c. It will be noted that "A" contained much more organic matter, nitrogen and phosphoric acid, and was much the better value. Sand and earthy matter were also a great deal higher in "B."

8. Liquid Manure.

The following analysis will be interesting as showing the composition of liquid manure as taken from a tank on a farm :—

Total solid matters	Grains per gallon. 386.96
consisting of	
Organic and volatile matters	164.36
Mineral matter	222.60
including sand and silica	31.64
Nitrogen	35.60
equal to Ammonia	43.23

The nitrogen, stated in percentage of the liquid contents, amounted to .051, equal to ammonia .062 per cent.

9. Sewage Sludge.

	In natural state.	Dried at 312°F.
Moisture	47.37	—
Organic matter	13.34	25.34
Oxide of iron and alumina	2.60	4.94
Phosphoric acid . . . . .	.37	.71
Lime	3.35	6.36
Alkalies, &c.	1.40	2.66
Sand	31.57	59.99
	100.00	100.00
Containing nitrogen . . . . .	.64	1.22
equal to ammonia . . . . .	.78	1.48

This material, which was obtainable for the mere cost of cartage, would be quite worth using if near at hand.

10. *Ash of Hop-bine.*

A sample was sent in order to ascertain the amount of potash contained. The analysis was :—

Percentage of :—		In natural state	On dry basis.
Moisture		36.75	—
Potash		1.79	2.83

11. *Lime.*

	A	B	C	D
Oxide of iron and alumina	1.79	4.55	7.33	3.46
Lime	91.58	66.93	58.94	71.06
Magnesia, &c.	.46	7.06	22.28	.99
Silica	1.69	12.58	5.05	16.04
Carbonic acid, &c.	4.48	8.88		
	100.00	100.00		

"A" was an excellent, well-burnt, lime. "B" came from Newmarket and cost £1 per ton on the land. It was of inferior quality. "C" cost 15s. and "D" 19s. per ton delivered. "D" was much the better of these two, but not as good as it really should be for the price.

12. *Ground Limestone.*

	A	B
Oxide of iron and alumina	1.17	1.84
Lime	52.45	48.12
Magnesia	Trace	.80
Carbonic acid, &c.	42.19	39.16
Silica	4.19	10.08
	100.00	100.00

"A" was from Buxton and cost 13s. 6d. per ton delivered. "B" came from Much Wenlock, Salop, and cost 12s. 10d. per ton delivered. "A" was much the better of the two.

Though the question of the utility of ground limestone must still be considered a subject for experiment, the material

is one that I think quite worth trying in this way. Experiments conducted at the Woburn Experimental Station on grass land appear to show that benefit may result from its use.

The following is a list of the samples submitted by members during the twelve months, December 1, 1913, to November 30, 1914:—

Linseed cakes	24
Uncorticated cotton cakes	12
Decorticated cotton cakes	7
Compound feeding cakes and meals	34
Cereals	27
Rice Meal	1
Dried grains	4
Superphosphates	17
Dissolved bones	3
Compound manures	17
Raw and steamed bones	8
Peruvian guano	4
Fish, meat, and bone guanos	12
Basic slag	29
Nitrate of soda	3
Sulphate of ammonia	5
Potash salts	11
Shoddy	39
Refuse manure	7
Lime	14
Soot	8
Waters	85
Soils	17
Milk, cream, and butter	27
Hoots and Horns	1
Rape cake manures	3
Sewage sludge	1
Gypsum	1
Miscellaneous	15
Total	436

J. AUGUSTUS VOELCKER.

1 Tudor Street, E.C.
December, 1914.

ANNUAL REPORT FOR 1914 OF THE BOTANIST.

DETERMINATIONS of the purity and germinating capacity of 218 samples of seeds and of four mixtures for permanent grass land were made in the course of the past year. Thirty-two of these samples were cereals, the majority of them barleys.

Very few cases occurred of marked discrepancies between guarantees and the results of the analyses. In the worst of these the usual excuse was pleaded that the seeds had been kept too long before being examined. One has to admit that such delay may result in a slight deterioration, and that it is difficult to appraise the amount with any certainty. It is therefore advisable, when analyses are required, to send the samples of seeds as soon as possible.

Taking the results as a whole they were satisfactory. The average value of the germinating capacity of some of the commoner seeds was as follows:—

Perennial rye grass . . .	96	per cent.
Italian rye grass . . .	94	"
Cocksfoot . . .	96	"
Timothy . . .	96	"
Foxtail . . .	79	"
Crested dog's tail . . .	93	"
Broad red clover . . .	94	" + 2 per cent. "hard" seeds
White clover . . .	91	" + 4 " "hard" seeds
Mangold . . .	146	"
Barley . . .	98	"

No kinds are included in the above table unless a minimum of ten samples of seeds have been tested. Perhaps the one noteworthy fact is the improvement shown this season in the germinating capacity of the two clovers.

Of the four grass mixtures, one, composed very largely of low grade perennial rye grass, was unfavourably reported on. Ten prescriptions for permanent pasture were drawn up early in the season, and during the late autumn six more for the renovation of recently sown grass land were inquired for. Two of the inquiries with regard to the management of grass land were of some general interest. Mixtures containing chicory had been sown in each case two seasons previously, and whilst the grasses had failed to form a turf the deeply-rooted, drought-resisting chicory had established itself to such an extent as to become a nuisance. The plant is extraordinarily difficult to exterminate, particularly on heavy soils, since any fragment of the root seems to be capable of producing a fresh plant. Consequently, even if the drastic course of breaking up the pasture is adopted, it cannot be resown without following or very thoroughly cultivating some cleaning crop. Yarrow, according to another report, may behave in the same fashion.

In view of the comparative frequency with which such cases have been met with lately it is becoming questionable whether the seeds of these plants, which are of doubtful agricultural value, should be included in grass mixtures.

Twenty-three plants were identified in the course of the year: fifteen of them weeds of no general interest and the remaining eight cereals. The determination of varieties in this latter group, in spite of being able to compare the specimens sent with a good collection, is becoming difficult owing to the renaming of older varieties.

Comparatively few of the fungi causing disease in plants were sent for examination before harvest, the total number till the end of October being only twenty-eight. Since then specimens of the various diseases of potato tubers have come in frequently. Twelve samples have been examined for corky scab (see Annual Report, 1913). These inquiries are probably the result of this disease being scheduled by the Board of Agriculture under the Destructive Insects and Pests Act. The symptoms, though strongly suggestive of corky scab, were: in all cases, due to other causes.

The chief diseases reported on were bean rust, larch canker, silver leaf, strawberry spot, peach mildew, dry-rot in timber, and apple scab.

The number of general inquiries amounted to 136. This shows a considerable increase on former years. It was partly accounted for by the agitation in the Press to increase the quantity of food stuff available in the immediate future by planting up vacant land with vegetables and the recommendations to sow an increased area of wheat where such a course was possible. Apart from this there were over twenty inquiries concerning new varieties of wheat and barley. More information on this subject is necessary. Although all available records have been collected from the various agricultural stations, where trials have been made systematically, the figures for yielding capacity are not sufficiently numerous to be entirely trustworthy. If Members growing any of these newer sorts under ordinary farming conditions will report the yields per acre and also the corresponding figures for some well-known variety, I shall be glad to collate the results and publish them in the annual reports.

It is impracticable to give any brief description of the remaining general inquiries. The most important of them dealt with the feeding value of horse-chestnuts, acorns and beech mast, the possibilities of growing maize in this country, the varieties of apples resistant to canker, the cultivation of willows for cricket bat timber, clover sickness, and sugar beets.

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ANNUAL REPORT FOR 1914 OF THE ZOOLOGIST.

THE weather conditions of the past year have been quite remarkable, and a correspondingly unusual incidence of insect attacks was therefore rather expected. As a fact, however, there has been singularly little departure from the ordinary in the matter of injurious insects. Some pests, notably various species of aphids, have been more active than usual, but several that are commonly associated with long spells of dry weather were almost absent. There is little, therefore, that calls for special notice, and the subjoined Report is chiefly designed to indicate the scope of the work of the department during 1914.

FOREST TREE PESTS.

The forest insects enquired about during the year were for the most part familiar pests, such as pine beetle, pine-shoot tortrix, elm-bark beetle, spruce-galls, &c. There was no recurrence of the spruce aphid, so injurious to Sitka spruce in the spring of last year, and the view that that attack was due to altogether exceptional weather conditions seems to be confirmed.

The caterpillar observed last year to be feeding on the pollen of *Pinus pinaster* was reared, and Mr Durrant, of the British Museum, kindly identified the moth as *Olethreutes bifasciana*. It is known to Lepidopterists as a species obtainable from various kinds of pine, but I find no record of it as a pest from the forester's point of view. Numerous questions have been asked with regard to beetles of the genera *Anobium*, *Xestobium*, and *Lyctus*, which burrow in dead wood.

FRUIT PESTS.

Attacks by various species of aphids were wide-spread and severe during the season. There was much apple-sucker. I never saw such quantities of red-spider eggs as were noticeable on the trees last spring, though later on the attacks of this pest were not as violent as had been anticipated.

The codlin moth did considerable harm in regions where it is usually scarce, and in some districts a large percentage of apples were bored by its caterpillar.

Of bush-fruit pests gooseberry saw-fly was especially prevalent, recurring throughout the dry summer.

It is worth noting that an application of the salt and lime wash used by Mr. Pethybridge at Cambridge to prevent apple-sucker attack proved much more successful against aphids. Notwithstanding a very thorough application of the wash the trees suffered considerable injury from apple-sucker, but their leaves presented a striking contrast to those of neighbouring untreated trees, which were all curled and distorted by aphids.

CORN AND GRASS CROPS.

There was little of interest in this section. Frit-fly and talip-root were reported in oats, and there were some complaints of gont-fly in barley. The usual underground pests—wireworm, leather-jacket, and chafer grubs—were occasionally enquired about, as were also various insects injurious to stored grain.

FARM AND GARDEN CROPS.

Many enquiries were received with regard to root-crop pests, including wireworm, millipedes, leather-jacket, root-maggots, gall-weevil, and surface caterpillar. There was an unusual amount of diamond-back moth attack, that pest appearing in localities where it was not familiar. There were some cases of mangold-fly, but the occurrence of celery-fly was very erratic. It appeared on quite young plants, just set out, early in the summer, but later on, at the usual season, the celery plants were generally almost free from attack. This was in marked contrast to the previous year, when the disease was very severe and wide spread.

Among garden crops slugs, various species of aphid, and onion and carrot flies were enquired about. Pea-thrips was the subject of few complaints, but the pea crop failed in many localities on account of the drought.

A new pest occurred in a nursery-garden in the form of a weevil, which proved to be *Euxomias pellucidus*. It made its appearance in extraordinary numbers, and attacked all kinds of plants. This sudden attack has probably no special significance. It is not a case of the introduction of an injurious insect from another country, but of the occasional prodigious increase of an insect which is always with us, but ordinarily in such small numbers as to do no harm. Entomologists recognise it as a weevil more than usually subject to fluctuations in its appearance, but I find no instance in which it has been recorded as injurious. It must have found the weather conditions extremely favourable to its increase, and it will probably be a long time before it again appears in anything like equal numbers.

ANIMAL PARASITES.

There have been a few enquiries with regard to warble-fly, and to worms parasitic in sheep and fowls. Many questions have also been answered concerning the various parasites to which troops are particularly subject when on a campaign—such as lice, ticks, harvest-bugs, and fleas—and I have been consulted in the drawing up of leaflets indicating the best preventive and curative measures.

Some applications have had reference to house-flies and the best way of reducing their numbers. In this connection it has been very interesting to note the great increase in the number

of house-flies in localities where cavalry or artillery were quartered in August. It directed attention to the fact that in normal times the substitution of motor-traction for horses had very much diminished the fly nuisance, for stables and manure heaps are the favourite breeding places of the insects, which only enter houses in search for food.

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THE WOBURN EXPERIMENTAL STATION OF THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

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FIELD EXPERIMENTS, 1914.

THE season of 1914 was marked by the prevalence of extreme drought during the summer and right up to harvest time. After a favourable period for the sowing of wheat, followed by a very open winter, dry weather was experienced throughout January and February, this being succeeded by a very wet March. After this, however, the drought set in and continued right up to harvest time.

On light land, such as that at Woburn, wheat suffered greatly in consequence, and the yields obtained were considerably below the average. Barley, on the other hand, was better, but oats were poor. Considerable difficulty was experienced in obtaining root crops, but, by continuous stirring of the land and keeping it in fine condition, fair crops, more especially of mangolds, were obtained.

Potatoes proved on the Woburn land a most successful crop, and the returns obtained were considerably in advance of those of recent years. Green crops suffered considerably, and the yield of hay was naturally small, pastures generally suffering much through the prolonged drought.

CONTINUOUS GROWING OF WHEAT (*STACKYARD FIELD*) 1914 (38TH SEASON).

After cleaning of the land, it was ploughed for the first time September 2—10, and for the second time October 13—16, 1913. Farmyard manure was ploughed in on plot 11b on October 11, 1913. The quantity applied was at the rate of 5 tons 8½ cwt. per acre, this being ascertained by analysis to supply 100 lbs. of ammonia per acre.

Mineral manures were spread on plots 4, 5, 6, 8, 9, 10a, and 11a on October 17, and on the same day the seed ("Square Head's Master"), previously treated with sulphate of copper, was drilled at the rate of 9 pecks per acre.

By November 1 the wheat was up, and, an open winter following, the wheat looked quite well until in March continuous rain came.

In February, 1914, the plots that had been treated with sulphate of ammonia looked very poor, and had a distinctly yellow colour. The farmyard manure plot (11b), as usual, was much the best at this period.

On April 4 rape dust was spread on plot 10b, the quantity being at the rate of 462 lbs. per acre, which supplied 25 lbs. of ammonia per acre.

On May 14—18 the first lot of nitrogenous top-dressings was applied to all the plots that were due to receive them, and in the case of the plots 3a, 8a, 8aa, and 9a, which were to have

TABLE I.—Continuous Growing of Wheat, 1914
(38th Season).

(Wheat grown year after year on the same land, the manures being applied every year.)

Stackyard Field—Produce per acre.

Plot	Manures per acre	Head corn		Tall corn	Straw, chaff, &c.	Wedge-tail butter flies
		No. of bush.	Weight per bushel	Weight		
1	Unmanured	3.8	Lb.	Lb.	C. q. lb.	4
2a	Sulphate of ammonia (= 25 lb. ammonia)	—	—	—	3 1 25	41 6
2aa	As 2a, with 5 cwt. lime, Jan., 1905, repeated 1909, 1910 and 1911	9.8	64.0	72	8 0 27	42 6
2b	As 2a, with 2 tons lime, Dec., 1897	6.5	63.0	28	5 1 16	42 6
2bb	As 2b, with 2 tons lime (repeated), Jan., 1905	4.9	63.0	56	4 3 0	41 6
3a	Nitrate of soda (= 50 lb. ammonia)	6.4	61.4	118	7 3 19	41 6
3b	Nitrate of soda (= 25 lb. ammonia)	5.7	62.0	108	6 2 6	42 6
4	Mineral manures (superphosphate, 3 cwt.; sulphate of potash, $\frac{1}{2}$ cwt.)	3.4	61.0	12	3 1 19	42 6
5a	Mineral manures and sulphate of ammonia (= 25 lb. ammonia)	7.9	60.0	30	5 2 19	41 6
5b	As 5a, with 1 ton lime, Jan., 1905	19.1	62.0	42	12 1 10	43 6
6	Mineral manures and nitrate of soda (= 25 lb. ammonia)	6.6	60.5	40	6 0 6	41 6
7	Unmanured	5.5	61.5	26	4 1 20	42 6
8a	Mineral manures and (in alternate years) sulphate of ammonia (= 50 lb. ammonia)	—	—	—	—	—
8aa	As 8a, with 10 cwt. lime, Jan., 1905	9.6	60.0	64	7 1 2	43 6
8b	Mineral manures, sulphate of ammonia (= 50 lb. ammonia) omitted (in alternate years).	—	—	—	—	—
8bb	As 8b, with 10 cwt. lime, Jan., 1905	4.0	62.0	44	3 1 19	43 6
9a	Mineral manures and (in alternate years) nitrate of soda (= 50 lb. ammonia)	7.3	62.0	82	8 3 22	42 6
9b	Mineral manures, nitrate of soda (= 50 lb. ammonia) omitted (in alternate years).	2.5	62.0	22	3 0 5	42 6
10a	Superphosphate 3 cwt., nitrate of soda (= 25 lb. ammonia)	9.8	61.0	70	8 0 19	42 6
10b	Rape dust (= 25 lb. ammonia)	11.2	62.5	74	9 3 11	43 6
11a	Sulphate of potash 1 cwt., nitrate of soda (= 25 lb. ammonia)	5.1	64.0	74	5 2 26	42 6
11b	Farmyard manure (= 100 lb. ammonia)	11.5	61.2	134	15 0 8	42 6

TABLE II.—Continuous Growing of Barley, 1914
(38th Season).

(Barley grown year after year on the same land, the manures being applied every year.)
Stackyard Field—Produce per acre.

Plot	Manures per acre	Head corn		Tail corn	Straw, chaff, &c.	Value per quarter on basis of 34s. 6d.	
		No. of bush.	Weight per bush.	Weight		s.	d.
1	Unmanured	17.8	49.5	82	12 0 19	31	0
2a	Sulphate of ammonia (=25 lb. ammonia)	—	—	—	—	—	—
2aa	As 2a, with 5 cwt. lime, Mar., 1906, repeated 1909, 1910 and 1912	6.9	50.0	40	4 3 16	31	0
2b	As 2a, with 2 tons lime, Dec., 1897, repeated 1912	21.4	48.7	132	15 3 13	31	0
2bb	As 2a, with 2 tons lime, Dec., 1897, repeated Mar., 1905	10.1	50.0	48	7 1 10	31	0
3a	Nitrate of soda (=50 lb. ammonia)	12.2	46.7	78	11 0 8	30	0
3b	Nitrate of soda (=25 lb. ammonia)	15.5	47.5	128	12 3 19	30	0
4	Mineral manures (superphosphate 3 cwt., sulphate of potash $\frac{1}{2}$ cwt.)	19.7	50.0	81	14 0 15	31	0
5a	Mineral manures and sulphate of ammonia (=25 lb. ammonia)	—	—	—	—	—	—
5aa	As 5a, with 1 ton lime, Mar., 1905	15.5	50.0	92	12 0 26	31	0
5b	As 5a, with 2 tons lime, Dec., 1897, repeated 1912	24.3	49.5	212	18 3 25	30	0
6	Mineral manures and nitrate of soda (=25 lb. ammonia)	18.0	48.7	112	14 3 15	30	0
7	Unmanured	11.3	49.0	92	9 1 17	30	0
8a	Mineral manures and (in alternate years) sulphate of ammonia (=50 lb. ammonia)	—	—	—	—	—	—
8aa	As 8a, with 2 tons lime, Dec., 1897, repeated 1912	20.3	48.7	156	16 1 13	31	0
8b	Mineral manures, sulphate of ammonia (=50 lb. ammonia) omitted (in alternate years)	—	—	—	—	—	—
8bb	As 8b, with 2 tons lime, Dec., 1897, repeated 1912	19.2	49.0	72	12 2 22	31	0
9a	Mineral manures and (in alternate years) nitrate of soda (=50 lb. ammonia)	19.5	48.1	128	18 2 12	30	0
9b	Mineral manures, nitrate of soda (=50 lb. ammonia) omitted (in alternate years)	13.9	47.7	58	10 2 19	30	0
10a	Superphosphate 3 cwt., nitrate of soda (=25 lb. ammonia)	24.5	50.0	78	16 1 27	31	0
10b	Rape dust (=25 lb. ammonia)	18.0	49.9	94	13 0 7	30	0
11a	Sulphate of potash 1 cwt., nitrate of soda (=25 lb. ammonia)	21.9	49.5	66	17 3 12	30	0
11b	Farmyard manure (=100 lb. ammonia)	24.6	50.5	72	18 2 20	31	0

the heavier dressings, the second applications were made on June 10. From this time right to the close, continuous drought had a very serious effect upon the wheat crop, the farmyard manure plot (11b) especially going back from its previous good condition.

The general result was that the crops ripened prematurely, and by August 15 they were all ready to cut. This was done, and, the grain being dry, the crop was threshed out direct from the field without stacking. The corn was subsequently dressed and weighed, and was valued in November by Mr. T. Smith, junr., of Bedford.

The results, as given in Table I., show that but a poor crop was reaped. Indeed, one has to go back to 1904 to find so low a general yield. The highest yield of all was now only 19·1 bushels (plot 5b) per acre, and the lowest yield was 2·5 bushels (plot 9b).

Of the two unmanured plots 1 and 7, the latter is to be taken by preference, as plot 1 was somewhat damaged by birds and rats. This gives the unmanured produce as 5½ bushels per acre only.

Mineral manures (plot 4), as usual, gave no increase; indeed, the yield was smaller, namely, 3·4 bushels.

Sulphate of ammonia used by itself without minerals or lime (plot 2a) gave no crop, and 7·9 bushels where minerals in addition were used, but without lime (plot 5a). With the heavier dressing of sulphate of ammonia along with minerals (plot 8a), the crop entirely failed, as usual.

When lime was used in addition to sulphate of ammonia, 6·5 bushels were obtained on plot 2b, where 2 tons of lime per acre only had been given, and this as long ago as December, 1897, the influence of the lime thus continuing to tell. Plot 2aa, which had had 1 ton of lime altogether, but applied in four separate dressings of 5 cwt. each at intervals, gave 2·8 bushels, whereas 2bb, which had had in January, 1905, an additional 2 tons of lime per acre to the original one of 2 tons in December, 1897, gave a lower yield than any of the other limed plots, namely, 4·9 bushels.

The addition in January, 1905, of 1 ton of lime to sulphate of ammonia and mineral manures (plot 5b) produced the highest yield of all the plots, namely, 19·1 bushels. On plot 8aa, where only 10 cwt. of lime per acre had been given in 1905, the yield was 9·6 bushels only, thus showing that the lime is becoming exhausted. Omission of sulphate of ammonia for a single year, as shown in the comparison of plots 8aa and 8bb, produced a diminution of 2·6 bushels, and gave only 1·6 bushel more than minerals alone (plot 4).

The results with nitrate of soda were generally not as good as those with sulphate of ammonia. Used by itself, nitrate of soda produced (plots 3a and 3b) from 5 to 6 bushels only, the heavier application only slightly increasing the yield. The use of mineral manures in addition gave only a slight rise (plot 6), while the heavier dressing of nitrate of soda with minerals yielded only an additional 1 bushel (plot 3a), the omission of nitrate of soda for the year reducing the crop to 25 bushels (plot 9b), the lowest of the whole series. Now this would seem to indicate that the nitrate of soda plots are failing generally throughout, this failure being naturally more marked in an exceptional season like the one under notice.

Comparing plots 10a and 11a, it would seem that on this land phosphates are more needed than potash, while, as between rape dust and farmyard manure (plots 10b and 11b), there was nothing to choose except as regards straw. The farmyard manure plot in the early part of the season looked considerably the better, but the rape dust plot gradually improved, and to all appearance was the better crop. Farmyard manure, however, yielded 5 cwt. per acre more straw.

As regards the quality of the corn, the valuer reported that the samples were all very poor for the season, and, but for the fact that wheat, even of low grade, was comparatively dear, he would not have assigned as high values as he did.

The yields of best quality were those with rape dust (plot 10b) and sulphate of ammonia together with minerals and lime (plots 5b, 8aa, 8bb). The worst were those grown with nitrate of soda, notably plots 3a and 3b, and these plots, along with the farmyard manure one (plot 11b), gave the most "tail" corn.

CONTINUOUS GROWING OF BARLEY (*STACKYARD FIELD*) 1914 (38TH SEASON).

The land was ploughed for the first time October 6-11, 1913. The second ploughing took place in February, 1914, when farmyard manure was applied on February 19 (plot 11b). The actual amount put on was at the rate of 6 tons 7 cwt. per acre, and such as to supply 100 lb. of ammonia per acre.

On April 4 barley ("Chevalier") was drilled at the rate of 9 pecks per acre, the seed having been previously dressed with sulphate of copper. Mineral manures were sown on the same day, and also rape dust spread on plot 10b at the rate of 462 lb. per acre, this giving 25 lb. ammonia per acre.

The first nitrogenous top-dressings were given May 14-18, and the second on June 10. The crop, as a whole, did better than the wheat, and, on July 26, the plots were ready for cutting. The

produce was carted home, but not stacked, and the corn was threshed out on September 8.

The results are given in Table II., page 289.

The crop was an improvement on that of 1913. There was, no doubt, in measure, to care having been taken to clean the land well. So high a yield has not been obtained on these plots since 1907, when the unmanured crop was 19 bushels per acre.

Of the two unmanured plots No. 1 is to be taken for preference, the unmanured yield, plot 7, having been considerably damaged by washing by rain, and the tilth on it in consequence not having been so good. The unmanured yield (plot 1) was 17.8 bushels per acre.

Mineral manures alone (plot 4) gave an increase to 19.7 bushels.

Sulphate of ammonia used by itself or with minerals, but without lime, gave no crop in any case. Where 1 ton of lime altogether (plot 2aa) had been used in four different applications of 5 cwt. each in addition to sulphate of ammonia, only 6.9 bushels were obtained, this amount of lime clearly not having been sufficient.

The repetition of 2 tons per acre of lime in 1905, 2 tons per acre having been previously given in 1897, produced 10.1 bushels only, but similar repetition in 1912 gave respectively 21.4 bushels (plot 2b), 24.3 bushels (plot 5b), and 20.3 bushels (plot 8aa).

The use of 1 ton of lime only with sulphate of ammonia and minerals (plot 5aa) gave 15.5 bushels. The omission, for a single year, of sulphate of ammonia (plots 8aa and 8bb compared) only lowered the produce by 1 bushel, the corresponding omission of nitrate of soda giving (plots 9a and 9b compared) a diminution of 5.6 bushels, the produce being even less than with the minerals alone (plot 4).

Nitrate of soda, used by itself, gave only 12.2 to 15.5 bushels, the heavier dressing not producing an increased crop.

The addition of minerals to nitrate of soda gave (plot 6) 18 bushels, while the double dressing of nitrate of soda with minerals (plot 9a) produced 19.5 bushels.

The comparison of plots 10a and 11a would seem to show that phosphates were more required than potash, while, as between rape dust and farmyard manure (plots 10b and 11b), the advantage was decidedly with farmyard manure, this plot giving 24.6 bushels, which was the highest produce of any of the series.

As regards the quality of the corn, the chief features were that all the samples were sound and sweet, having been harvested well. None of them were, however, quite up to

standard, though the dearness of foreign barleys gave to them a value higher than that which they would have ordinarily obtained. The lowest quality was obtained, as usual, with the plots to which nitrate of soda had been given, notably 3a, 3b, 3a, 3b. Between the other lots there was little or nothing to choose.

ROTATION EXPERIMENTS.—THE UNEXHAUSTED MANURIAL VALUE OF CORN AND CAKE (STACKYARD FIELD).

(a) Series C. 1910, *Swedes fed on by Sheep with Corn and Cake respectively*; 1911, *Barley*; 1912, *Green Crops*; 1913, *Wheat*; 1914, *Swedes*.

Subsequent to the removal of the wheat crop of 1913, the land was ploughed and left until spring. On May 21, 1914, it was sown with 3 cwt. per acre of superphosphate and 1 cwt. per acre of sulphate of potash. Swede ("Invicta") seed was sown at the rate of 6 lb. per acre on May 30. The crop came up fairly and was singled July 6-18. During the summer drought the roots suffered very greatly and needed rain very much. "Finger and toe" also made its appearance to some extent. By keeping the land constantly stirred, it was found possible to just keep the roots "going," though the crop obtained was necessarily a small one. The weights are given in Table III.

TABLE III.—Rotation Experiment. Series C (Stackyard Field).

Produce of Swedes, 1914, after Wheat.

Plot		Weight of roots per acre			
		T.	c.	q.	lb.
1	Corn-fed Plot	7	0	2	26
2	Cake-fed Plot	6	18	3	26

The produce, as was expected, was but small, with practically no difference showing between the two plots. Before beginning another rotation it will be necessary to cart on swedes from another field to make up the 12 tons per acre usually fed on the land before putting in the spring crop of barley.

The first rotation course of the new series being now concluded, it will be well to review the results of the past four years and see what differences, if any, have been brought out

as between feeding corn and feeding cake on the land. The following summary enables such a review :—

Year	Crop	Plot 1 Corn-fed plot	Plot 2 Cake-fed plot
		Produce per acre	Produce per acre
1911	Barley (after roots fed on)	28.5 bushels	23.8 bushels
		T. c. q. lb.	T. c. q. lb.
1912	Trifolium (cut as hay)	1 19 1 21	1 16 2 21
1913	Wheat	26.7 bushels	22.7 bushels
		T. c. q. lb.	T. c. q. lb.
1914	Swedes	7 0 2 25	6 18 2 26

It will thus be seen that in no case has the produce from the cake-feeding exceeded that of the corn-feeding, a result quite contrary to that which would have been expected. In seeking for an explanation, the only untoward circumstance that I can call to mind is that in 1910, when the root crop was fed on, the corn-feeding was done in dry, favourable weather, while when cake was being fed on there was much wet and the land was left in a bad condition and did not plough up nearly as nicely for barley as was the case on the corn-fed plot. How far this may have influenced the succeeding barley crop it is hard to say, but one would have thought that any inequality due to this would have righted itself by the time the wheat crop came round. Yet this was not so, for, again, the crop was heavier after the corn-feeding.

Before one is justified in concluding that corn-feeding is just as good as cake-feeding, it is clear that repetition of the experiment is necessary, and this is being carried out on Series D, and will be continued on Series C also for another four-course rotation.

(b) *Series D.* 1912, *Swedes fed on by sheep with Corn and Cake respectively*; 1913, *Barley*; 1914, *Green Crop (Mustard)*.

After the barley crop of 1913 was removed, the first ploughing of the land took place in October, 1913, and the second ploughing on May 8-13, 1914. On May 23, mustard was drilled at the rate of 10 lb. per acre. A fair, but not large, crop was obtained, the drought telling against its growth. Sheep were put on the land and fed the mustard from July 21-30. On August 8, a second drilling of mustard was made, but the crop never grew to any size to make it sufficient for feeding on. It was accordingly ploughed in in October, 1914, and wheat subsequently sown.

GREEN-MANURING EXPERIMENTS.

(a) *Stackyard Field. Series A.*

The land was ploughed in September, 1913, after the green crops of that year had been fed on by sheep. On October 13, "Square Head's Master" wheat, previously dressed with sulphate of copper, was sown at the rate of 9 pecks per acre. It came up well and looked flourishing over all the plots until about May, 1914, when, through lack of rain, it lost its colour considerably. The "tares" plot at this time appeared to be standing the drought rather the best. The differences, however, were not marked, and subsequently the "rape" and "mustard" crops improved, the rape plot looking, if anything, the better. The wheat crop was cut on August 15, and, on August 20, it was threshed direct from the stook. The results are given in Table IV.

TABLE IV.—*Green-Manuring Experiment (Stackyard Field).*
Produce of Wheat per acre, 1914—after Green Crops.

Plot	Manuring	Head corn				Tail corn	Straw, chaff, &c.	Value of corn per quarter on basis of 11s	
		Weight	Bush.	Weight per bushel	Weight				
1	Tares fed on . . .	Lb. 904	14.2	Lb. 63.6	Lb. 91	C. q. lb. 12 3 16	s. d. 43 0		
2	Rape fed on . . .	1,128	17.8	63.2	100	15 1 22	43 0		
3	Mustard fed on . . .	1,020	16.1	63.3	69	14 1 9	42 6		

It will be seen that the rape gave the best return both in corn and in straw, mustard coming next, while the crop after tares was the smallest of the three. The difference in quality between the different lots was not much. They were none of them good samples, being below the season's average, and also low in gluten. The wheat from the mustard plot contained a good deal of small blighted grain.

(b) *Lansome Field.*

The land was ploughed after the oat crop of 1913, and left until the spring.

On April 8, 1914, spring tares were sown on plots 1 and 2 at the rate of two bushels per acre, and, on May 20, rape seed at the rate of 8 lb. per acre was drilled on plots 3 and 4, and mustard on plots 5 and 6 at the rate of 10 lb. per acre. The green crops grew very fairly, and on July 16 were ploughed in as usual. A second crop of tares was sown on July 25, and

second crops of rape and mustard on August 8. The crops were, in turn, ploughed in on October 9, and wheat with fallow as the crop for 1915.

VARIETIES OF WHEAT.

Butt Furlong.

Attention having been drawn to new varieties of Swedish and Danish wheat, it was thought desirable to try them at Woburn in comparison with a standard English variety, such as is grown in the district. The varieties selected were "Svalöf" (Swedish), "Tystofte" (Danish), and "Square Head's Master" (English).

The Danish wheat was obtained direct from the Danish Government, the Swedish wheat from an agent in this country. $\frac{1}{4}$ acre plots were marked out, and each experiment was in duplicate.

The wheats were sown on October 22, 1913, at the rate of 9 pecks per acre. "Svalöf" (Swedish) was the latest in coming up, and throughout did not look nearly as well as the other varieties. The "Tystofte" (Danish), though better than the Swedish, was not nearly the equal of "Square Head's Master."

The crops generally were below the average owing to the drought. They were cut on August 21, and the threshing results are given in Table V.

TABLE V.—*Varieties of Wheat, 1914.*

Butt Furlong. Produce per acre.

Plot	Varieties	Head corn			Tail corn	Straw, chaff, &c.		Value of corn per quarter on basis of 48s.
		Weight	Bush.	Weight per bush.	Weight			
		Lb.		Lb.	Lb.	C. q.	lb.	s.
1	"Svalöf" (Swedish)	955	16.4	58.1	72	16	0	26
4	" " "	1,041	17.4	60.0	94	19	2	12
2	"Tystofte" (Danish)	1,558	25.6	60.9	130	22	2	11
5	" " "	1,546	24.8	62.3	116	26	0	17
3	"Square Head's Master" (English)	1,914	30.4	63.0	98	29	0	27
6	" " "	1,842	28.9	63.5	121	28	1	11

It will be seen that "Square Head's Master" gave decidedly the best return both in corn and in straw. It showed on the average 4 bushels more corn per acre than the "Tystofte," the latter in turn producing about 8 bushels more than the Swedish variety. The "Square Head's Master" also gave decidedly the highest weight per bushel.

The produce was valued, and here again the "Square Head's Master" came out the best. In the opinion of the valuer it was an average sample of the year's wheat, uniform in colour, but not with much strength. The "Tystofte" was considered badly grown and not well matured, being lacking in strength and colour. The "Svalöf" was described as a coarse, thick-skinned, ugly sample that might just pass in the present season for milling, and would produce plenty of bran but very little flour.

It would not seem, therefore, that either the Danish or the Swedish variety of wheat here tried is likely to replace a good English variety like "Square Head's Master."

INFLUENCE OF MAGNESIA ON WHEAT.

Following up the experiment of 1913 conducted in Lansome Field, 2 plots of $\frac{1}{2}$ acre each were marked out in Rutt Furlong adjoining the experiments on varieties of wheat described on page 296. One of these was left untreated, and the other had 4 cwt. of magnesia spread upon it on October 21, 1913. This, accordingly, was equal to a dressing of 4 tons per acre¹. Wheat—"Square Head's Master"—was sown on October 22 at the rate of 2 pecks per acre. The wheat came up fairly on both plots, and so continued until early in spring, when, once more, the ravages of birds upon the plot where magnesia had been used, and which were noted in last year's report, intervened.

It was noticeable that the wheat on this plot was of a much darker green colour than where no magnesia had been used, and also the plant tillered out very much more. The plant was, however, so much destroyed by the birds pulling it up that it would be misleading to give the comparative yields.

The valuer reported the "magnesia treated" wheat as being a very strong glutinous sample of red wheat, which would be nearly perfect but for containing a few thin blighted corns. He assigned a value of 4ls. 6d. to it as against 4ls. for the untreated lot, which had more yellow and weak corns in it.

Determinations of nitrogen in the grain gave the following figures :—

	With magnesia.	Without magnesia.
Percentage of nitrogen	1.80	1.78

By the kindness of Mr. A. E. Humphries, of Cox's Lock Mill, Weybridge, milling and baking tests of the two lots of grain were also carried out.

The flours gave :—

	With magnesia.	Without magnesia.
Percentage of dry crude gluten	9.50	8.54

¹ The soil of this field contained lime (CaO) 41 per cent., magnesia (MgO) 24 per cent.

Mr. Humphries, however, found both lots to be inferior and poor in working, and he was surprised that flours with such high figures for gluten should yield such poor bread. The real point of interest was that as between the two lots there was substantially no difference in regard to baking qualities.

INFLUENCE OF MAGNESIA ON MANGOLDS.

In the autumn of 1912 (as described in *Journal R.A.S.E.*, 1913, pp. 402-3) two small plots were marked out in Lausome Field, on one of which magnesia, at the rate of two tons per acre, was spread previous to the sowing of wheat, the other being untreated. The wheat crop of 1913 showed very markedly the influence of the magnesia in giving a darker green colour to the wheat, inducing more tillering, yielding a larger crop, and producing a more nitrogenous grain. It was thought well to continue the experiment with the following crop—mangolds—not, however, adding any more magnesia to the land, which then had, approximately, as much magnesia as lime in the first 6 inches of the soil.

On April 24, 1914, mangold ("Windsor") seed was sown at the rate of 7 lb. per acre. On July 3, $\frac{1}{2}$ cwt. of nitrate of soda and $\frac{1}{2}$ cwt. of common salt per acre were used as a top-dressing. It was noticeable that the leaves of the mangold plants were much darker in colour where magnesia had been used, and the crop generally looked better. The roots were pulled on October 12, and gave the following results:—

		Roots per acre,			
		Tons Cwts. Qrs. Lbs.			
With magnesia	21	12	2 0
Without magnesia	20	18	3 0

Thus the superiority shown with the wheat crop of 1913 was continued to a slight extent with the root crop of 1914.

VARIETIES OF BARLEY (*BUTT CLOSE*).

Simultaneously with the trial of Swedish and Danish wheats there was carried out in Butt Close a similar one with varieties of Barley. The varieties tried were "Svalöf Primus" (Swedish), which had given a germination power of 98 per cent., "Tystofte Prentice" (Danish), of germination power 99 per cent., and purity 99·8 per cent., and "Archer's Stiff Straw" (English). These trials were on $\frac{1}{4}$ acre plots, each being duplicated.

The barleys were sown on April 2, 1914, at the rate of 9 pecks per acre. Of the different varieties, the Svalöf was much the earliest. It came into ear on June 13, the others a week later. The Svalöf continued to keep ahead of the others, and seemed decidedly the tallest and biggest crop, visitors to

the farm being much struck with its appearance. It was ready for cutting on August 7, the other varieties being a week later, namely, on August 14. The crops were carted August 18-19, and subsequently threshed, the results being given in Table VI.

TABLE VI.—Varieties of Barley, 1914.
Butt Close Produce per acre.

Plot	Variety	Head corn		Tail corn	Straw, chaff, &c.	Value of corn per quarter on basis of 3s.		
		Weight	Bush.	Weight per bush.		Weight		
		Lb.		Lb.	Lb.	C. q. lb.	s.	d.
1	Archer's "Stiff-straw" (English)	2,465	46.1	53.5	122	27 3 6	33	6
4	" " "	2,329	43.6	53.1	122	28 2 4	33	6
2	"Svalöf Primus" (Swedish)	2,352	44.7	52.6	84	27 3 19	33	0
5	" " "	2,165	41.1	52.7	110	25 2 27	33	0
3	"Tystofte Prentice" (Danish)	2,343	42.8	54.7	149	26 1 24	34	0
6	" " "	2,649	48.9	54.4	168	29 0 6	34	6

Though the duplicate plots do not agree well, it is possible to draw the general conclusion that the "Tystofte Prentice" (Danish), was quite as good as, and possibly slightly superior to, the English "Archer," both of these, in turn, being better than the Swedish variety. On the average of the duplicates, the "Tystofte" gave 45.8 bushels of corn per acre as against the 44.8 bushels of the "Archer," and the 42.9 bushels of the "Svalöf Primus." Nor was the amount of straw less, while, on valuation of the grain, the "Tystofte" came out the highest and the "Archer" next.

The valuer reported that all three lots were sound barleys, well harvested and in good condition. He placed the "Tystofte" in the highest grade, as quite up to this year's samples, having a nice thin skin and a good "crease," and being uniform in colour. The "Archer" was thicker in skin and not so uniform in colour, while the "Svalöf" was hard and not a good brewer's or maltster's barley, though sound; the grains, moreover, had a yellowish-green tinge.

It would thus seem that the Danish variety "Tystofte Prentice" was decidedly a promising one, but the "Svalöf Primus," though it looked so superior in the field, was very disappointing both as to yield and quality, and only had its early maturity to recommend it.

VARIETIES OF OATS (WARREN FIELD).

In this field a trial of a Swedish variety ("Svalöf Victory"), in comparison with two Canadian varieties ("Banner" and "Mammoth White Cluster"), and an English variety ("Newmarket") was carried out in 1914.

The oats were sown on $\frac{1}{2}$ acre plots on March 15. The "Svalöf" variety was rather later in coming up than the others. The crops, however, were all cut on August 12, carted on August 21, and subsequently weighed, the results being given in Table VII.

TABLE VII.—Varieties of Oats, 1914.

Warren Field—Produce per acre.

Plot	Variety	Head corn			Tail corn	Straw, chaff, &c.		Value of crop per quarter on basis of 28s.
		Weight	Bush.	Weight per bush.	Weight			
1	"Svalöf Victory" (Swedish)	Lb. 1,236	37.4	Lb. 33.0	Lb. 149	0. q. lb. s. d.	14 3 4	27 0
2	"Newmarket" (English)	1,029	32.7	31.4	164	11 1 18	26	0
3	"Banner" (Canadian)	1,096	31.5	31.8	214	12 1 8	26	0
4	"Mammoth White Cluster" (Canadian)	999	32.8	30.4	196	12 2 18	26	0

The highest yield was obtained from the Swedish variety ("Svalöf Victory"), this giving three bushels more oats per acre than the "Banner" (Canadian), which has of late years done so well at the Woburn Farm. It also produced the most straw and gave the best price in the valuation. The "Banner" was next best, but between it and the other Canadian variety ("Mammoth White Cluster") and "Newmarket" (English) there was not much to choose. The valuer, however, did not think well of any of the lots, but considered them below the year's average, light in weight, and badly grown.

CLOVER AND GRASS MIXTURES.

Series B. Stackyard Field, 1914.

These mixtures, it will be remembered, were sown in 1912 in a barley crop. While one mixture contained the ordinary White Clover, the other had the ordinary white replaced by "Wild White" Clover, the extra cost per acre of seeding

amounting to 9s. On a third plot "Wild Red" Clover was sown by itself. The details of the mixtures are given in the report for 1913. In that year there was practically no difference between the mixture with "wild" and that containing the ordinary white clover, though in the appearances of the two plots there was a good deal of difference, the "wild white" clover showing its more creeping nature.

Two crops of hay were taken in 1913, and, after this, sheep were run over—November 7-13—but without having any cake. In February, 1914, the plots were rolled, and again in April. A hard frost occurring on May 26 cut down the crops considerably, more especially the "wild red" clover. They recovered, but want of moisture prevented heavy crops of hay being taken. The first cut was obtained on June 16, and carted on June 18, the second crop on August 16 and carted on August 19. The results were as follows:—

Plot	Seeding	Weight of hay per acre		
		1st crop	2nd crop	Total
		T. c. q. lbs.	T. c. q. lbs.	T. c. q. lbs.
1	Mixture with wild white clover	1 13 3 7	0 5 0 14	1 18 3 21
2	Mixture with ordinary white clover	1 17 3 12	0 6 1 5	2 4 0 17
3	Wild red clover alone	0 3 0 27	0 6 1 13	0 9 2 12

The heaviest yield was given with the ordinary white clover, but anyone going over the plots after the hay had been removed could see that there was a great difference between the two plots, the "wild white" clover showing its close, creeping nature and smaller leaf, thus covering the ground very much more, and giving a much better "bottom" for pasturage than the ordinary white clover. The same was noticeable with the "wild red" variety.

VARIETIES OF RYE-GRASS (STACKYARD FIELD, 1914).

The three small plots of Pacey rye-grass, Dutch rye-grass and Italian rye-grass put down in 1911, were continued in 1914.

The first crop of hay was taken on June 28, the second crop on August 25. Table VIII. gives the weights of hay for the two crops of 1914, while the results for the three years, 1912, 1913 and 1914 are given in Table IX.

TABLE VIII.—*Varieties of Rye-grass (Stackyard Field).*
Produce of Hay per acre, 1914.

Variety	1st crop			2nd crop			Total		
	T.	c.	q. lb.	T.	c.	q. lb.	T.	c.	q. lb.
Pacey rye-grass	1	5	3 11	0	10	3 6	1	16	3 17
Dutch	1	4	1 21	0	15	1 2	1	19	2 23
Italian	1	3	3 14	1	1	2 13	2	5	5 27

TABLE IX.—*Varieties of Rye-grass (Stackyard Field).*
Produce of Hay per acre, 1912, 1913, 1914.

Variety	1912			1913			1914		
	T.	c.	q. lb.	T.	c.	q. lb.	T.	c.	q. lb.
Pacey rye-grass	1	6	3 19	1	6	1 7	1	16	2 17
Dutch	1	15	3 1	0	16	3 19	1	19	2 23
Italian	2	11	3 9	0	19	2 26	2	5	1 27

It will be seen that the Italian rye-grass gave, in two years out of the three, considerably the highest produce, as also over the whole series, while the Dutch variety, which was one of rather earlier nature, was only slightly superior to the Pacey rye-grass.

VARIETIES OF LUCERNE.

Series B. Stackyard Field.

Though the "plant" of Lucerne left on the different plots was not very promising after the three crops of 1913 (the third year in succession) had been taken, it was decided to continue these for another year. The plots were harrowed and horse-hoed in the winter, and rolled in February, 1914. They then showed much improvement, and, in spite of the prolonged drought of 1914, two cuttings were obtained, namely, on July 15 and September 1. Both these were made into hay, and the results are given in Table X.

TABLE X.—*Varieties of Lucerne (Stackyard Field).*
Produce of Hay per acre, 1914:

Variety	Sown under a corn crop						Sown bare					
	1st crop			2nd crop			1st crop			2nd crop		
	T.	c.	q. lb.	T.	c.	q. lb.	T.	c.	q. lb.	T.	c.	q. lb.
American (Arizona)	1	6	0 9 15	2	0	2 1 2	0	1	7	0	0	0 16
Canadian	2	12	6 0 1	2	0	6 3 14	0	3	2 11	0	0	1 1
Turkestan	0	13	2 0 0 13	3	12	1 7	1	12	0	0	14	2 0 1 8
Provence	2	9	6 0 1	0	2	0 3 9	2	0	2 7	2	0	1 2 0
Russian (Europe)	2	18	2 0 1 5	2	0	4 4 0	0	2	12	2	0	1 4
Russian (Asia)	2	4	2 0 0 18	0	0	3 3 2	0	2	11	2	0	0 19
North American	2	9	2 0 0 19	2	0	3 9 0	0	2	9	0	0	1 0

Although for the past two years the yield of Lucerne had been better on the portion sown without a crop, this difference has now disappeared. As in 1912 and 1913, the highest yield was obtained with the Russian (Europe) variety, the Canadian coming next, and the Provence being but slightly inferior. The American (Arizona) and Turkestan varieties gave the lowest produce, the Turkestan being decidedly the worst of all.

INOCULATION OF LEGUMINOUS CROPS.

The description of this experiment is given in the report for 1912 when the seeds were originally sown. The crop of 1914 was cut on August 4 and weighed green: the results are given in Table XI:—

TABLE XI.—*Inoculation of Leguminous Crops.*

Stackyard Field—Green Produce per acre, 1914

	Seed not inoculated				Seed inoculated			
	T.	c.	q.	lb.	T.	c.	q.	lb.
Lucerne	3	4	1	27	3	2	2	0
Red clover	2	5	2	7	2	5	2	7
White clover	0	7	3	21	0	6	3	22

In 1914, as in the previous year, no conclusion could be drawn as to the value of the inoculation treatment, which, as explained in 1912, was one of American origin. It would appear that this must be classed, with many of its predecessors, as a failure.

VARIETIES OF LINSEED.—*GREAT HILL.*

Attention has been drawn of late to the revival of flax growing in England, and, for the purpose of encouraging this, an Association under the name "The British Flax and Hemp Growers' Society" has been formed. This Society carried out in different parts of the country, during 1914, experiments on the growing of linseed, and it was decided to take part in this enquiry at Woburn. The seed was kindly supplied by the above-mentioned Association. The experiment at Woburn was one purely on varieties, four different kinds being supplied, and the trial was carried out on duplicate plots.

It should be mentioned that, of the four varieties, the seed of one, the "White-flowering" (Dutch), was subsequently found to have been of inferior quality and germination, thereby rendering the comparison of it with the other varieties hardly a fair one.

The seed was sown on plots in Great Hill on May 7, 1914, at the rate of 8 pecks per acre. The first three varieties were up by May 17, but the Dutch variety was, for the reason given, a good deal later in appearing.

During the period of growth, it was noticeable that the "White-flowering" (Dutch) variety was quite different to the others, it being very much the tallest, and it appeared generally to be more suited for the production of fibre than that of seed. The "Steppe" was the first to ripen its seed, and the crop was harvested on August 27, being subsequently passed through an ordinary thresher and dressed with the hand-winnowing machine with wheat "riddles" in. It cannot be said, however, that this was successful in producing as clean a seed as is desirable, and, probably, special "riddles" will be required if linseed is grown to any extent.

The next variety to ripen was "La Plata," which was cut on September 1, the "Morocco" and the Dutch varieties only being ready on September 4. The results are given in Table XII. :-

TABLE XII.—*Produce of Linseed, per acre. Great Hill, 1914.*

Variety	Weight	Bushels	Weight per bushel	Straw
	Lb.		Lb.	C. q. lb.
"Morocco" (a)	996	18.3	54.4	15 1 17
" " (b)	1202	21.4	56.1	16 0 13
"Steppe" (a)	745	13.4	55.5	15 2 14
" " (b)	930	16.8	55.3	19 1 6
"La Plata" (a)	1131	20.5	55.2	13 0 26
" " (b)	1127	20.2	55.7	14 3 23
White-flowering (Dutch) (a)	775	14.3	54.0	23 0 19
" " (b)	565	10.1	55.9	18 2 20

The duplicates generally did not agree as well as could have been wished. Taking the average of these duplicates we have per acre :-

Variety	Weight	Bush.	Straw	Oil in seed
	Lb.		C. q. lb.	Per cent.
"Morocco"	1,099	19.9	15 3 1	39.47
"Steppe"	837	15.1	17 1 24	37.88
"La Plata"	1,129	20.3	14 0 10	38.85
White-flowering (Dutch)	670	12.2	20 3 19	34.06

It will be seen that "La Plata," on the whole, did best, and this, I am informed, has been the general experience over the

country wherever similar experiments have been tried. The "Morocco" was, however, but slightly inferior to it, while the White-flowering (Dutch) was the worst. This last-named variety, as expected, gave the most straw, but the percentage of oil in the seed was lower than in any of the others.

SOYA BEAN.

For the third year in succession the attempt was made to grow Soya bean. The seed was sown on April 29, 1914, the plant appearing on May 21, but, though it grew quite well, it only succeeded in producing a few insignificant pods. It must, therefore, be concluded that this plant is quite unsuited for our English climate.

GRASS EXPERIMENTS.—*BROADMEAD, 1914.*

- (a) Improvement of Old Pasture.
- (b) Varieties of Lime.
- (c) Different Forms of Lime.

As Broadmead was grazed in 1914, there is nothing to record except such differences as clearly showed themselves in the appearances of the several plots:—

(a) *Improvement of Old Pasture.*

The manurial applications had been last made in spring, 1913, and were not now repeated. The most striking plot was plot 5 on which lime had been used at intervals, the last application being in 1909, superphosphate and sulphate of potash being given in 1913. This plot was the greenest, the most level, the finest, and the best eaten plot of all. As a contrast to it, the farmyard manure plot (6) was much the roughest, and was most neglected by stock, even to a greater extent than the unmanured one. Sulphate of potash used with either superphosphate or basic slag much improved the pasture, and between the two forms of phosphate there was little to choose.

(b) *Varieties of Lime.*

The last applications were in 1910. The chalk lime plot (2) had the best appearance, and then the Buxton lime (plot 1); lias lime came next, though oolite lime was good also. The worst looking plots were those where magnesium lime had been used or no treatment given.

(c) *Different forms of Lime.*

It is still early for the applications (made in spring 1913) to tell, but, at the present time, if any plots were selected for choice these would be plots 4 and 5, where ground limestone

and ground chalk respectively have been used. Ground lime also seems to have done better than lump lime.

RAINFALL AT WOBURN EXPERIMENTAL STATION, 1914.
(292 ft. above sea level.)

	Total Inches	No. of days with 0.1 in. or more recorded		Total Inches	No. of days with 0.1 in. or more recorded
January	0.84	13	July	1.60	14
February	1.79	16	August	1.00	15
March	3.65	24	September	1.22	9
April	0.85	9	October	3.28	12
May	1.03	14	November	2.22	18
June	2.17	12	December	6.08	24
			Total	25.73	180

POT-CULTURE EXPERIMENTS, 1914.

I. Hills' Experiments :—

- (a) The influence of Copper Salts on Wheat.
- (b) The influence of Lead Salts on Wheat.

II. The relation of Lime to Magnesia in Soils.

The addition of Lime to a Soil rich in Magnesia.

III. Acidity of Soils. Stackyard Field, Continuous Barley, 1914.

IV. Inoculation of Crops (Bottomley's Peat Preparation).

V. Sewage Sludge Experiments.

I. *The Hills' Experiments—(a) The influence of Copper Salts on Wheat.*

Experiments with copper salts were first tried at Woburn in 1913, the salts then used being the sulphate and the carbonate. These experiments derived special importance from the fact that at the Rothamsted Experimental Station Miss (Dr.) Brenchley had found that, as the result of carrying out experiments in water-culture, copper salts were peculiarly harmful to vegetation.

The experiments of 1913 carried out at Woburn on soil instead of by water-culture did not bear out to anything like the same extent the conclusions formed by Miss Brenchley, but showed that there was a distinct difference between water-culture and soil-culture experiments. Water-culture must, at best, in my opinion, be regarded as a very artificial method, and, though it may be useful by way of comparative tests and for forming a general indication of what may be expected to

result, it fails, I think, to afford any quantitative test of the extent to which the presence of a constituent may be inimical or the reverse under the ordinary conditions of plant life. Thus, in 1913, it was found, by growing plants in pots, that considerably more than ten times as much copper as Miss Breckley had found to be harmful in the case of water-culture was needed to be present in soil in order to injure vegetation.

At Woburn in 1913, when using sulphate of copper, it was found that .05 per cent. of copper in the soil or anything more than this, prevented a crop from growing, or else very materially reduced it; .02 per cent. or less than this exercised, however, no injurious effect or even had a stimulating one; while, when carbonate of copper was used, .1 per cent. of copper or more showed injury, and .05 per cent. or lesser quantities had a stimulating effect. It was thought desirable to repeat this experiment and to use other salts of copper as well. Accordingly, the experiments of 1914 took the form of using copper as sulphate, phosphate, carbonate, nitrate and arsenite respectively, the amounts of copper in each set being .10, .05, .02, .01, and .005 per cent. respectively.

The experiments were carried out on wheat in earthenware pots holding 40 lb. of soil each, and each experiment was in duplicate. The salts were intimately mixed with the whole of the soil held in each pot.

The soil used in these experiments was from Butt Furlong, and was a much richer soil than that used in the experiments of 1913. This is shown by a comparison of the untreated produce of the two years, the actual weights obtained for a single pot being as follows:—

	1913		1914	
	Corn	Straw	Corn	Straw
	Grms.	Grms.	Grms.	Grms.
Actual weight of untreated produce	11.16	16.63	34.69	73.48

In consequence of the better soil, the produce all round was much larger than in 1913. This same fact may account for the effects of the copper salts—though tending in the same direction as in 1913—to have not been so marked as then.

The pots were filled with soil towards the end of November, 1913, and wheat ("Red Standard") was sown on December 1, twelve grains per pot. Germination was somewhat irregular, but the main points to remark upon are that the only salts to seriously affect germination were the heaviest

(·10 per cent.¹) dressing with sulphate of copper, the two heaviest (·10 and ·05 per cent.) with nitrate of copper, and the heaviest (·10 per cent.) with arsenite of copper.

With sulphate of copper in the heaviest dressing the first plant did not appear until January 29, 1914; with nitrate of copper (·10 and ·05 per cent.) the first appeared on February 2, 1914, and only two or three plants came up in all; while with arsenite of copper (·10 per cent.) only two plants came up, though the germination in the case of the smaller applications was quite satisfactory.

The twelve plants were thinned to six plants on March 16, except where these had been already materially affected, when all the plants were left. Observations taken at different periods during the period of growth led to the following general conclusions:—

The untreated plants throughout were healthy and vigorous.

With sulphate of copper the plants receiving the heaviest application (·10 per cent.) did not make much growth, and showed but little tillering. With the dressing of ·05 per cent. better growth was obtained, but both this and the heavier application clearly showed toxic indications.

With phosphate of copper the plants were decidedly good, and seemed to have been to some extent stimulated throughout the whole series. There was no indication of toxic influence in any of these pots. With carbonate of copper the indications, though in the same direction as with the sulphate, were not so marked.

Nitrate of copper gave more marked signs of injury than any of the foregoing. With ·10 per cent. of copper there was no growth whatever, and with ·05 per cent. the indications were very similar to those with the heavy dressing (·10 per cent.) of sulphate of copper. Towards the later period of growth the lighter applications of nitrate of copper seemed to show the benefit of the nitrogen in the darker foliage produced.

Lastly, with arsenite of copper all the plants were killed off by the heaviest dressing (·10 per cent.). With ·05 per cent., though the germination had been good, the plants were very weak, and nearly all eventually died. Much the same effect was produced with the application of ·02 per cent., and the still smaller dressings also affected the plants injuriously.

The wheat came into ear on June 12. Photographs of the growing crops were taken on August 10, and the crops themselves were cut on August 18. The results are given in comparative form in Table I.

¹ NOTE.—The figures wherever given in this experiment refer to the amount of *metal* (copper) contained in the various salts as actually applied and not to the amounts of the salts themselves.

TABLE I.—Copper Salts on Wheat, 1914.

						Corn	Straw
No. treatment						100	100
Sulphate of copper containing	.10	per cent. copper				43.2	34.3
"	"	"	.05	"	"	96.99	80.8
"	"	"	.02	"	"	101.96	111.7
"	"	"	.01	"	"	98.6	107.8
"	"	"	.005	"	"	101.2	106.9
Phosphate of copper	"	"	.10	"	"	113.7	109.9
"	"	"	.05	"	"	93.3	107.1
"	"	"	.02	"	"	94.1	100.9
"	"	"	.01	"	"	98.6	104.0
"	"	"	.005	"	"	95.4	100.2
Carbonate of copper	"	"	.10	"	"	67.8	55.7
"	"	"	.05	"	"	100.5	93.6
"	"	"	.02	"	"	113.3	93.1
"	"	"	.01	"	"	106.8	103.7
"	"	"	.005	"	"	101.1	94.2
Nitrate of copper	"	"	.10	"	"	4.7	8.3
"	"	"	.05	"	"	40.9	39.9
"	"	"	.02	"	"	100.9	92.8
"	"	"	.01	"	"	118	111
"	"	"	.005	"	"	140	125
Arsenite of Copper	"	"	.10	"	"	—	—
"	"	"	.05	"	"	—	—
"	"	"	.02	"	"	—	78
"	"	"	.01	"	"	78.1	51.1
"	"	"	.005	"	"	99.9	90.2

As already observed, the crops were very much larger than in 1913 owing to a richer soil having been used.

Generally speaking, while the influence of the copper salts was exerted much in the same direction as in 1913, it was not of so marked a nature. This, more or less accidental, repetition of the experiment with a different soil would appear to have a considerable bearing on the conclusions which are to be formed from such experiments as these with regard to the exact amount of particular salts which may prove to be injurious or the reverse. It would seem that it must not be concluded that because in the case of one soil—say a poor one—a certain amount of copper or other body has been found to be harmful, this same amount will necessarily be found to be harmful in the case of a better and richer soil. There can be little doubt that, as the conditions for the vigorous life of a plant are improved, so it is likely to be more immune to injurious influences, and *vice-versâ*. This is, to my mind, the explanation of the quantitative differences between the results of 1913 and 1914.

Turning to Table I., and comparing this with Table II. of 1913 (Journal R.A.S.E., Vol. 74, page 416), it will be seen that,

whereas with the heaviest dressing of sulphate of copper no crop at all was obtained in 1913, there was now somewhat less than half a crop. With .05 per cent. of copper, which gave only a small crop in 1913, the injurious action of sulphate of copper was now not nearly so strongly marked, whereas with quantities of .02 per cent. and less the result was neutral or possibly slightly stimulating, as found in 1913.

With phosphate of copper there was no instance of injury, and, on the whole, the effect of the applications was one of a stimulating nature. It is noticeable, however, that though these crops generally looked better than the untreated (see Plates 5, 7, 9, 11), the produce when weighed showed no actual increase.

The results with carbonate of copper were in the same direction, though hardly as marked as in 1913. The heaviest dressing (.10 per cent.) gave under three-quarters of a crop, but with quantities of .05 per cent. and under no harmful, but possibly a somewhat stimulating, effect was produced.

The results with nitrate of copper were very striking. They are separately illustrated in Plates 1 and 2. The application of .10 per cent. of copper almost entirely destroyed the crop, while .05 per cent. reduced it to less than half a crop. When .02 per cent. of copper was used, no harm resulted, and lesser quantities had decided stimulating influences, due, no doubt, to the nitrogen supplied in the salt. It will be noticed from Plate 2 that the roots of the plants receiving .02 per cent. of copper in the form of nitrate had a distinctly feathery appearance, whereas with .01 per cent. this disappeared, and the roots became of normal character.

With arsenite of copper, all the first three (and heaviest) dressings entirely destroyed the crop, while smaller amounts, even down to .005 per cent. of copper, affected it adversely. This was owing, no doubt, to the doubly toxic influence exercised by the two bodies, copper and arsenic. The crops and the corresponding roots are illustrated separately in Plates 3 and 4. It will be seen that even as little as .005 per cent. of copper in the form of arsenite produced some reduction on the untreated crop.

The appearances presented by the growing crops and the corresponding roots as a result of using sulphate of copper and carbonate of copper respectively have already been illustrated in last year's report (see Plates 3 and 4, 5 and 6, R.A.S.E. Journal, 1913, pp. 416-17). The results of the experiments of 1914, as already mentioned, were in the same direction, though injury—when done—was not so marked in amount as in 1913.

In addition to illustrating the effect of a single salt of copper used in different amounts, it has been thought desirable to

illustrate also in comparative form the effect of the same amount of copper, but used in different salts. This is accordingly illustrated by Plates 5-12. These are set out for the following respective amounts of copper :—10 per cent. (Plates 5 and 6), 05 per cent. (Plates 7 and 8), 02 per cent. (Plates 9 and 10), and 01 per cent. (Plates 11 and 12). The first Plate of each set gives the growing crop, the second the corresponding roots. It will be seen from these how marked is the difference, alike in crops and in roots, between the effect of one and the same amount of copper when applied in different forms.

Taking, first, the highest amount (10 per cent.) of copper, Plate 5 shows marked deterioration of crop with sulphate of copper, an increased crop with the phosphate, a diminished one with the carbonate (though not to the same extent as with the sulphate), and almost no crop at all with the nitrate, while with arsenite of copper germination was entirely destroyed. As regards the roots, Plate 6 shows these to be feathery and smaller than the untreated in the case of the sulphate and carbonate, while they are of normal nature and well developed with the phosphate. With nitrate there was almost no root growth.

Passing to 05 per cent. of copper, Plate 7 shows the crop with sulphate of copper to be slightly below the untreated, to be increased with the phosphate, to be about normal with the carbonate, and to be greatly reduced with the nitrate. The corresponding roots (Plate 8) were large and feathery with the sulphate and carbonate, feathery, but small, with the nitrate, but quite normal with the phosphate.

With 02 per cent. of copper (Plate 9) the crop with sulphate of copper was better than the untreated, this being also the case with the phosphate and the carbonate, the latter showing a shorter but thicker and heavier crop. With the nitrate the straw was not so long, but the crop proved to be equal in weight to the untreated. With the arsenite a few stalks only were seen, but no grain was produced. The corresponding roots (Plate 10) were large and feathery with the carbonate and nitrate, but normal with the sulphate and phosphate.

Lastly, with 01 per cent. (Plate 11), the sulphate, phosphate, and carbonate all showed increase of crop; the nitrate gave a shorter but thicker crop and an increased weight, while the arsenite yielded about a half-crop. The corresponding roots (Plate 12) showed a tendency to featherness in the case of the nitrate only, the remainder being quite normal.

It is clear, therefore, that the same amount of copper acts very differently according to the form in which it is supplied.

Putting together the general conclusions, it may be said to have been demonstrated :—

1.—That copper in the form of sulphate of copper has an injurious effect when used in quantity supplying .05 per cent. of copper or more, but that .02 per cent. of copper, or less than this, can safely be used in this form and has a slightly stimulating effect.

2.—That copper in the form of phosphate of copper has a generally stimulating influence, and can be used in quantities supplying up to .10 per cent. of copper without producing any toxic effect on the plant.

3.—That copper in the form of carbonate of copper is nearly as harmful as sulphate of copper, when used in quantities approaching .10 per cent. of copper. With .05 per cent. the effect is doubtful, but .02 per cent., or less than this, has, when used in the form of carbonate, a stimulating influence.

4.—That copper in the form of nitrate of copper when supplying .02 per cent. of copper or more is distinctly harmful, but when used in less amounts has a stimulating influence.

5.—That copper in the form of arsenite of copper is very harmful, and that even so small a quantity as .05 per cent. of copper in this form may be toxic in its effects.

(b) The Influence of Lead Salts on Wheat.

In 1912 the first set of experiments on this subject was conducted, the results being reported in *Journal R.A.S.E.*, 1912, Vol. 73, page 324. Lead phosphate, lead nitrate, and lead carbonate were the salts then tried, the quantities of the metal employed with each salt being respectively .03, .02, and .01 per cent. When used in these quantities as phosphate and carbonate, lead was found to be peculiarly inert. With the nitrate, however, a stimulating influence was found, though this was, in all likelihood, due to the nitrogen supplied rather than to the lead. Used as the nitrate, no injurious effect was found even when .03 per cent. of lead was added, the results being thus very different to those obtained with zinc when the same quantity of that metal was used, and different again to those with lithium when used to only one-tenth of that amount. It having been found that .03 per cent. of lead was without harmful effect, it was now resolved to try lead in higher amounts. Accordingly, the new experiments embraced the use of lead in the following amounts : .10, .05, .03 per cent., and the salts employed were the phosphate, carbonate, nitrate, sulphate, and chloride. These experiments were conducted simultaneously with those on copper salts just described, the pots used being rather smaller earthenware ones, holding 34 lb.

the soil in increasing amounts until in the highest quantity the lime was double the amount of magnesia present. It was found that lime could be added to this extent without harm, and, indeed, with a beneficial effect. This particular soil had, up to the end of 1913, been already used for five successive corn crops, the last being wheat in 1913. Although the experiment was practically concluded, and it had been shown that excess of lime did not act in the disadvantageous way in which excess of magnesia did, it was decided to grow in 1914 yet another corn crop, namely, barley.

The soil was turned out from the pots, exposed to the air, broken up, sieved, and replaced in the pots towards the close of February, 1914. Superphosphate at the rate of 3 cwt. per acre and sulphate of ammonia 1 cwt. per acre were added to the top soil, and barley (*Chevalier*) was sown, 12 seeds per pot, on March 18, 1914. Germination took place well and regularly, and the plants were in due time thinned out to six per pot. No marked differences were shown during the period of growth, and the crops were cut on August 20. The results are given in Table III. :—

TABLE III.—*The addition of Lime to soil rich in Magnesia, 1914. Barley (sixth consecutive corn crop).*

	No. of ears	No. of grains	Weight of	
			Corn	Straw
			Grammes	Grammes
No treatment	34	459	19.02	29.52
Lime added, to 2.5 per cent.	29	392	16.90	26.82
" " " 3.0 "	24	414	20.17	27.92
" " " 3.5 "	31	494	23.97	30.57
" " " 4.0 "	31	536	25.82	31.10
" " " 4.5 "	21	411	19.10	23.71

The results were not so marked as in 1913, when it will be seen (*Journal R.A.S.E.*, 1913, vol. 74, pp. 417-19) that the heaviest dressing of lime gave the largest crop. At the same time, although this was the sixth successive corn-crop, the results now obtained tend in the same direction as those previously recorded. The addition of lime up to 3, 3.5, and 4 per cent. respectively gave crops all exceeding the no treatment crop. The produce with the highest amount of lime (4.5 per cent.), though below these, was still as good as the untreated.

It is therefore clear that addition of lime to a soil rich in magnesia is beneficial, and can be applied without detriment even to an extent where the lime is double the amount of magnesia present in the soil.

A fresh series of experiments will now be started with a new supply of the soil.

III. *Experiments on the Acidity of Soil.*

Stackyard Field, Continuous Barley, 1914.

The question of acidity in soils and the best way of remedying this has of late aroused much interest. The use of lime at Woburn both in the field work and in pot-culture experiments has frequently been referred to, and it has been shown how the acidity caused by the prolonged use of sulphate of ammonia on a soil naturally poor in lime can be entirely corrected. At the same time, certain anomalies have appeared during the progress of the field experiments, notably in the case of plot 2bb (continuous wheat) where the application of four tons of lime per acre (two tons per acre in December, 1897, and a repetition of this in January, 1905) has not as yet produced such a good crop as that on plot 2b, where a single application of two tons of lime per acre was made in December, 1897, and not repeated since.

Seeing that in these field experiments lime had always been applied in the caustic state, this seemed to indicate the possibility of harm being done by the use of lime in the caustic state to this extent.

This deterioration, while occurring in the case of wheat, was not, however, found with the barley crop, the repetition of two tons of lime per acre having produced no harmful effect, but, on the contrary, having yielded a much increased crop.

It was accordingly resolved to carry out at the Pot-culture Station further experiments on this point, and chiefly with a view to seeing whether carbonate of lime in place of caustic lime, and in what amounts, would be beneficial in correcting the acidity of the soil. In the meantime, Dr. Hutchinson, of the Rothamsted Experimental Station, had worked out a new method for the estimation of the acidity of soils, and, having been supplied with soil from several of the Woburn plots, he calculated in them the amount of acidity in terms of carbonate of lime, and kindly supplied the figures for use in these new experiments.

For the purposes of the experiments soil was taken from the following continuous barley plots of Stackyard Field :—

- | | |
|---------|--------------------------------------------------------------------------------------------------------|
| Plot 1. | Unmanured. |
| " 2a. | Sulphate of ammonia alone. |
| " 2bb. | Sulphate of ammonia with four tons of lime per acre. |
| " 5a. | Mineral manures and sulphate of ammonia. |
| " 5b. | As 5a. with four tons of lime per acre |
| " 5aa. | Mineral manures and sulphate of ammonia (double-dressing)
together with four tons per acre of lime. |

For more detailed information regarding the several plots reference may be made to Table II. (continuous barley) in the present Field Experiments report (page 289).

It was determined to carry out three methods of treatment in the case of each soil. In the first of these the soil as it occurs in the field and without further treatment was taken. In the second case carbonate of lime was added in the quantities ascertained by Dr. Hutchinson to be sufficient to just neutralise the soil acidity. In the third case carbonate of lime was added to 50 per cent. in excess of the figures supplied by Dr. Hutchinson, lime thus being in marked excess.

The carbonate of lime (chalk) was in each case ground up finely and intimately mixed with the whole of the soil used in each pot. Earthenware pots, each holding 34 lb. of soil, were used. On April 14, 1914, barley was sown, 12 seeds per pot, the plants, being, later on, thinned to six per pot.

The crops grew well throughout; the chief points of difference observed during the growth are given below, and the crops were cut on August 26, 1914, and weighed. The results are given in Table IV.

TABLE IV.—*Acidity of Soil, Stackyard Field. Continuous Barley, 1914.*

Plot		No. of ears	No. of grains	Weight	
				Corn	Straw
				Grammes	Grammes
1	Untreated	14	192	7.86	13.88
	Neutralised	11	218	9.05	12.57
	Excess lime	16	224	8.37	13.57
2a	Untreated	6	26	.75	1.75
	Neutralised	19	314	13.48	14.73
	Excess lime	22	321	13.00	19.20
2bb	Untreated	17	283	12.32	16.52
	Neutralised	16	240	10.73	17.50
	Excess lime	18	297	11.42	15.95
5a	Untreated	15	155	7.00	14.65
	Neutralised	18	257	11.35	17.93
	Excess lime	21	336	15.40	18.80
5b	Untreated	16	273	11.81	16.93
	Neutralised	17	294	12.32	16.80
	Excess lime	15	278	11.87	14.80
8aa	Untreated	19	226	11.90	19.50
	Neutralised	16	226	10.05	17.95
	Excess lime	18	309	14.60	17.80

Plot 1 (no treatment), 1·2 tons carbonate of lime required per acre.

There were no great differences observed during growth. If anything, the neutral and excess lime crops had a better colour. The harvest results showed no marked differences, though, from the returns, as compared with those of other plots, it was clear that the land wanted manuring.

The need for the addition of lime, even to the extent suggested by Dr. Hutchinson, was not clearly brought out.

Plot 2a (sulphate of ammonia alone), 2·60 tons of carbonate of lime required per acre.

This soil came from a plot on Stackyard Field which, for several years past, has never been capable of bearing a crop, no lime having been applied to it, while sulphate of ammonia has been used every year.

In the untreated pot the crop at first came quite well, but then rapidly fell off and died away just as it does in the field.

Where the soil was just neutralised, the crop was markedly better, and still better where lime in excess was used, the tillering of the plant being more marked. The harvest results showed an almost entire failure of crop when untreated, but both the neutral and excess lime crops were large, and practically as good as any in the whole series. There was but little difference between them in corn, but the excess lime produced much the most straw. It would appear from these results that it is only lime which the soil requires, and that there is plenty of nitrogen present for plant needs. Also that lime may be safely used in excess.

Plot 2bb (sulphate of ammonia with 4 tons of lime per acre), 40 ton carbonate of lime required per acre.

The crops here all grew well, and there were no marked differences. It was clear from the harvest results that this plot has quite sufficient lime in it.

Plot 5a (sulphate of ammonia and minerals, without lime), 1·80 tons carbonate of lime required per acre.

During the period of growth the neutral and excess lime crops were much in advance of the untreated. This was shown at harvest, when, of the two lime sets, the excess lime one was the better both in corn and straw. It would appear that this soil needs a large amount of lime, and more than is required in the case of plot 2a.

Plot 5b (sulphate of ammonia with minerals and 4 tons of lime per acre), no carbonate of lime required to neutralise.

The crops here were all good, the differences being but little marked either during growth or at harvest. It would appear from the results that lime has already been given in sufficiency.

Plot 8aa [sulphate of ammonia (double dressing) with minerals and 4 tons of lime per acre], no carbonate of lime required to neutralise.

The crops were fair. The excess treatment seemed to show slightly the better crop. The harvest results were somewhat contradictory and a certain amount of uncertainty must attach to these, as the excess lime crop, while giving the most corn, produced the least straw. It is doubtful, indeed, whether this plot needs liming at all.

Putting together the general results, the conclusion may be come to that where soil acidity has gone to the extent that a crop cannot be produced—as in the case of plots 2a and 5a—lime, as carbonate of lime, may advantageously be added to an extent exceeding that required to neutralise the acidity present; but that where—as in plots 1 and 2bb—acidity may be indicated, but a fair crop be still produced, there is no advantage from adding lime as carbonate of lime even to neutralising point. Lastly, when—as in plots 5b and 8aa—no acidity is shown, further liming is thrown away. In no case was there, when using carbonate of lime, the harmful effect produced in the case of plot 2bb of the Continuous Wheat series, and due, no doubt, to the causticity of the lime applied.

IV. *Inoculation of Crops (Bottomley's Peat Preparation).*

It was determined to make a trial of the new preparation of Peat, introduced by Professor Bottomley, for the purpose of inoculating crops. An account of the method of preparation is given in the *Journal of the Royal Society of Arts*, Vol. LXII., No. 3,199, March 13, 1914. It may briefly be stated that this consists of the formation, in the first place, of soluble humates, after which the material is sterilised and then inoculated with *azotobacter* and other nitrogen-fixing organisms. The necessary material was kindly supplied by Prof. Bottomley, and an analysis of it gave the following results:—

Moisture	19.87
¹ Organic matter	40.87
² Mineral matter	9.26
	100.00
³ Containing nitrogen (total)	2.16
equal to ammonia	2.63
Soluble nitrogen . . . . .	.53
equal to ammonia . . . . .	.64
⁴ Containing sand	3.66
" lime . . . . .	.83

Previous experiments at Woburn having shown the advantage of heating ordinary Fen soil, it was determined to compare the effect of this with Bottomley's Peat preparation in order to

see whether any influence attaching to the use of the latter might not be derived purely from the organic and nitrogenous matters supplied.

The experiment was accordingly arranged as follows :—

1. Ordinary Woburn soil.
2. Ordinary Woburn soil, with Bottomley's preparation added in the proportion recommended by him *viz.* eight parts of soil to one of the Peat.
3. Ordinary Woburn soil, with heated Fen soil.

In No. 2 the Peat preparation was added to the top six inches of soil, and in No. 3 the same bulk of heated Fen soil was mixed with the top six inches of soil. The Fen soil had been heated continuously for two hours at a temperature of $str. 100^{\circ} C$. The crops were barley, peas, and mustard, and the pots—which were in duplicate—were filled on March 31, 1914, and sown on April 8.

During the period of growth it was noticed that with mustard the Bottomley preparation and the Fen soil imparted a much darker green colour to the crop than did the untreated soil. Later on, the Bottomley preparation produced much thicker stems, and at the beginning of July, when the first crop of mustard was ready to cut, the effect was very marked. With barley the Bottomley preparation gave also a darker colour and a broader flag, and with peas a stronger growth and better colour. The Fen soil appeared to be without much effect in the case of barley and peas.

The first crop of mustard was cut on July 4, and the second crop sown at once. This second crop showed much the same differences as were observed in the first instance, and was in due time also cut and weighed green.

The barley crop when ripe was cut and weighed, but the peas were very much blighted, an unsatisfactory crop resulting, and the results with peas must be taken with reserve. There was, however, no mistaking the better appearance and greener colour of the crop treated with the Bottomley preparation. The results were as follows :—

	Mustard		Barley		Peas	
	Weight of green crops					
	1st crop	2nd crop	Corn	Straw	Corn	Straw
	Grms.	Grms.	Grms.	Grms.	Grms.	Grms.
1 Ordinary soil	59.6	12.3	18.1	25.5	7.0	10.9
2 Do. with Bottomley's preparation	163.3	20.6	19.6	33.5	10.1	16.9
3 Do. with heated Fen soil	71.8	20.0	11.0	27.1	3.5	12.5

From these results it is seen that the benefit of the Bottomley preparation was very marked in the case of mustard, a slight advantage accruing with barley, and, so far as can be judged, an advantage also with peas. The Fen soil proved slightly better than the ordinary soil with mustard, but not as good with the barley crop, and in each case it fell considerably below the Bottomley preparation?

Tomatoes.

Simultaneously with the above, an experiment was tried on tomatoes with the Bottomley preparation as against artificial equivalents of the same. This was carried out in large earthenware pots which were filled on April 9, 1914. The soil used was made up from Woburn soil with old rotted turf and finely ground limestone. The Bottomley Peat preparation was mixed with the soil in the same proportions as before, namely, one part to eight of soil. The experiment—which was in duplicate—was arranged as follows:—

1. No treatment.
2. Bottomley preparation applied once.
3. Bottomley preparation applied twice.
4. Bottomley preparation applied once, with phosphate of potash, 2 cwt. per acre.
5. Bottomley preparation applied twice, with phosphate of potash, 2 cwt. per acre.
6. Nitrate of ammonia applied once.
7. Nitrate of ammonia applied twice.
8. Nitrate of ammonia applied once, with phosphate of potash, 2 cwt. per acre.
9. Nitrate of ammonia applied twice, with phosphate of potash, 2 cwt. per acre.
10. Phosphate of potash alone, 2 cwt. per acre.

The quantity of nitrate of ammonia used was such as to give the same amount of nitrogen as the soluble nitrogen contained in the Bottomley preparation. During the period of growth it was noticeable that the tomatoes treated with the Bottomley preparation invariably were of darker green colour than the rest. There was a stouter growth and not the yellow colour of the crops treated with artificials. This was more particularly the case where the preparation had been applied twice.

The lots treated with nitrate of ammonia looked better than the untreated, but were not the equal of the Bottomley preparation, the no treatment and the phosphate of potash giving apparently the poorest growth so far as stem, foliage, and flowering were concerned. The plants were allowed to grow on until the fruit ripened, and this was eventually

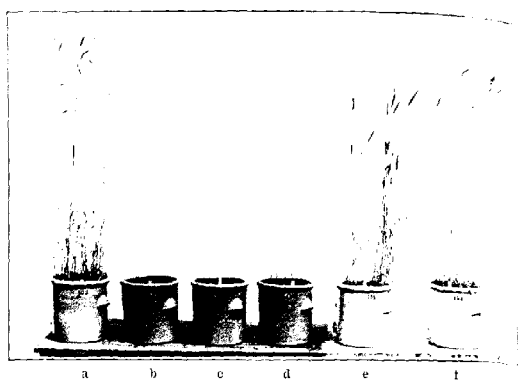


PLATE 5. Amount of Copper in Wheat, Season 1914.
 (a) No treatment; (b) .10 per cent; (c) .05 per cent; (d) .02 per cent; (e) .01 per cent; (f) .002 per cent of Copper respectively in soil.

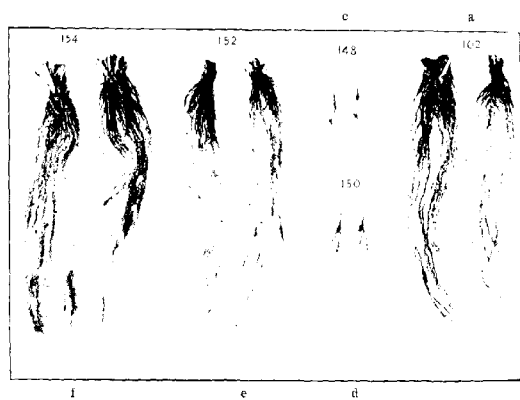


PLATE 6. Amount of Copper in Wheat, Season 1914.
 Roots of plants in Plate 5.
 (a) No treatment; (b) .05 per cent; (c) .02 per cent; (d) .01 per cent; (e) .002 per cent of Copper respectively in soil.

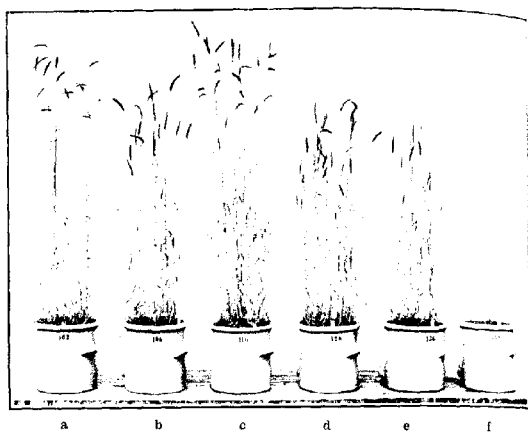


PLATE 7.—Salts of Copper on Wheat. Season 1914. .05 per cent. of Copper in different forms.

(a) No treatment; (b) sulphate; (c) phosphate; (d) carbonate; (e) nitrate; (f) control.

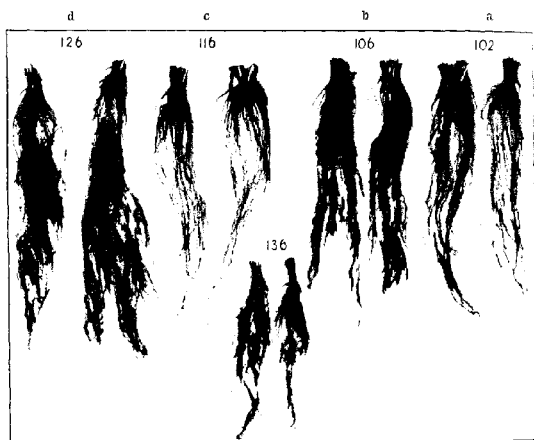


PLATE 8.—Salts of Copper on Wheat. Season 1914. .05 per cent. of Copper in different forms.
Roots of plants in Plate 7.

(a) No treatment; (b) sulphate; (c) phosphate; (d) carbonate; (e) nitrate.

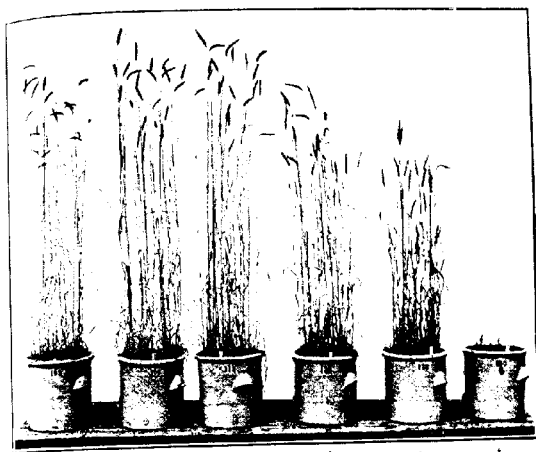


PLATE 9. Salts of Copper on Wheat. Season 1914. .07 per cent. of Copper in different forms.
 (a) No treatment; (b) sulphate; (c) phosphate; (d) carbonate; (e) nitrate; (f) arsenate.

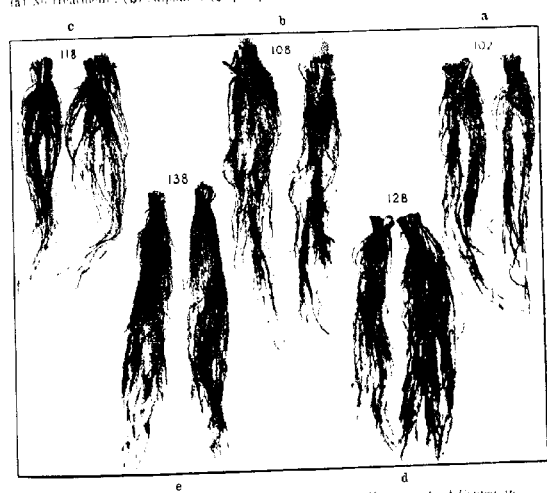


PLATE 10. Salts of Copper on Wheat. Season 1914. .02 per cent. of Copper in different forms.
 Roots of plants in Plate 9.
 (a) No treatment; (b) sulphate; (c) phosphate; (d) carbonate; (e) nitrate.

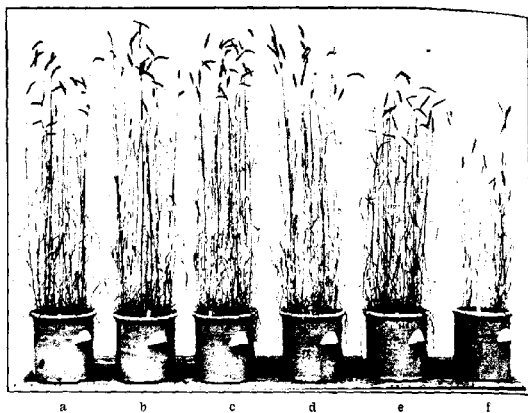


PLATE 11.—Salts of Copper on Wheat. Season 1914. .01 per cent. of Copper in different forms.

(a) No treatment; (b) sulphate; (c) phosphate; (d) carbonate; (e) nitrate; (f) arsenite.

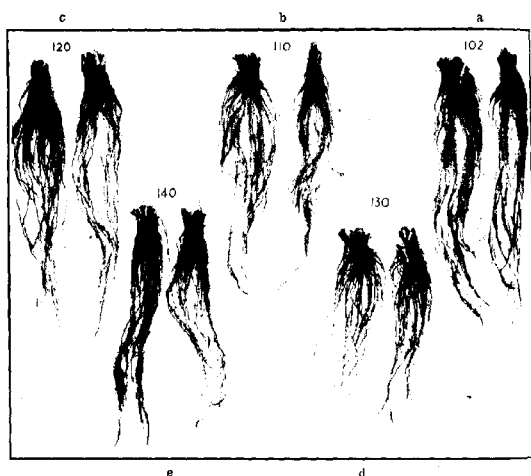


PLATE 12.—Salts of Copper on Wheat. Season 1914. .01 per cent. of Copper in different forms.
Roots of plants in Plate 11.

(a) No treatment; (b) sulphate; (c) phosphate; (d) carbonate; (e) nitrate.

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weighed. The following table gives the average produce of each set.

No.		Total weight of fruit, lbs.	Average produce per set
		(a) Gross (b) Clean	
1	No treatment	(a) 1046.8 (b) 1160.6	1115.7
2	Bottomley preparation applied once.	(a) 959.7 (b) 1469.2	1209.9
3	Bottomley preparation applied twice	(a) 925.4 (b) 1024.7	964.9
4	Bottomley preparation applied once, with phosphate of potash	(a) 1161.3 (b) 1097.6	1129.5
5	Bottomley preparation applied twice, with phosphate of potash	(a) 934.5 (b) 861.1	897.8
6	Nitrate of ammonia applied once	(a) 1046.9 (b) 1374.6	1210.7
7	Nitrate of ammonia applied twice	(a) 1128.3 (b) 1063.4	1095.8
8	Nitrate of ammonia applied once, with phosphate of potash	(a) 914.6 (b) 1171.2	1042.9
9	Nitrate of ammonia applied twice, with phosphate of potash	(a) 1213.3 (b) 1255.6	1284.5
10	Phosphate of potash alone	(a) 866.3 (b) 923.3	897.3

Though the appearances were so marked on the growing plants, it will be seen that the differences were not borne out in the fruit produced. The results in fruit with Bottomley's preparation were not as high as those when nitrate of ammonia was similarly applied, and, indeed, were slightly below those of the untreated soil.

Putting together the general conclusions formed from the foregoing experiments, there can remain no doubt whatever that the Peat preparation exercised a distinct influence upon the vegetation. The results with barley, peas, and mustard coupled with those on the vegetative growth of the tomatoes

clearly show that there is *something* effected by the pot-culture, that this is due not to the chemical composition alone of the same. What this *something* may be must be the work of future investigation.

V. *Sewage Sludge Experiments.*

In 1914 an extended series of experiments was carried on at Woburn on behalf of the Royal Commission on Sewage Disposal. This concerned principally the trial of sludge prepared by a new process which aimed at removing the grease, thereby enhancing, as was hoped, the value of the sludge as manure. The account of these experiments will be published in the Appendix to the Report of the Royal Commission, and the work is accordingly not dealt with here. It is sufficient to say that the experiments failed to show the "degreased" sludge to be improved in value, for the natural sludge in every instance proved to be the better.

J. AUGUSTUS VOELCKER.

1 Tudor Street, E.C.

Royal Agricultural Society of England.

*Established May 9th, 1838, as the ENGLISH AGRICULTURAL SOCIETY, and
incorporated by Royal Charter on March 26th, 1840).*

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HIS MOST GRACIOUS MAJESTY THE KING.

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	NORTHUMBERLAND	258	1	Sir C. V. Knightley.
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	SCOTLAND	517	1	Capt. Theo. Beirns.
		3,801	23	T. A. Baitar.
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	DEVON	151	1	J. H. Hipe.
	DURHAM	125	1	G. Middleton.
	ESSEX	201	1	W. Sooton.
	HEREFORDSHIRE	156	1	A. P. Turner.
	LEICESTERSHIRE	178	1	Sir A. G. Hazlerigg.
	LONDON	567	3	W. W. Chapman; Sir Howard Frank; W. A. May.
	NOTTINGHAMSHIRE	154	1	C. M. S. Pilkington.
	RUTLAND	27	1	Lord Banksborough.
	SHROPSHIRE	487	2	Lord Harlech; Alfred Mansell.
	SUFFOLK	236	1	Fred Smith.
	SURREY	227	1	Daniel Kelly.
	WILTSHIRE	168	1	James E. Rowledge.
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IN EACH YEAR FROM THE ESTABLISHMENT OF THE SOCIETY.

Year ending with Show of	President of the Year	Governors		Members	
		Life	Annual	Life	Annual
1839	3rd Earl Spencer	—	—	—	—
1840	5th Duke of Richmond	86	189	146	2,434
1841	Mr. Philip Pusey	91	219	231	4,047
1842	Mr. Henry Handley	101	211	328	5,194
1843	4th Earl of Hardwicke	94	209	429	6,155
1844	3rd Earl Spencer	95	214	442	6,161
1845	5th Duke of Richmond	94	193	527	6,899
1846	1st Viscount Portman	92	201	554	6,105
1847	8th Earl of Egmont	91	185	607	5,478
1848	2nd Earl of Yarborough	93	186	648	5,367
1849	3rd Earl of Chichester	89	178	582	4,943
1850	4th Marquis of Downshire	90	169	627	4,856
1851	5th Duke of Richmond	91	192	674	4,715
1852	2nd Earl of Ducie	93	156	711	4,002
1853	2nd Lord Ashburton	90	147	739	3,929
1854	Mr. Philip Pusey	88	146	771	4,151
1855	Mr. William Miles, M.P.	89	141	795	3,838
1856	1st Viscount Portman	85	139	859	3,896
1857	Viscount Ossington	83	137	896	3,933
1858	6th Lord Borne	81	133	904	4,010
1859	7th Duke of Marlborough	78	130	927	4,068
1860	5th Lord Walsingham	72	119	977	4,041
1861	3rd Earl of Powis	84	90	1,113	3,328
1862	H.R.H. The Prince Consort	83	97	1,151	3,475
1863	1st Viscount Portman	80	88	1,263	3,735
1864	2nd Lord Feversham	78	45	1,343	4,013
1865	Sir K. O. Kerrison, Bart., M.P.	79	81	1,386	4,190
1866	1st Lord Tredegar	79	84	1,395	4,049
1867	Mr. H. S. Thompson	77	82	1,388	3,903
1868	8th Duke of Richmond	75	74	1,409	3,688
1869	H.R.H. The Prince of Wales, K.G.	75	73	1,417	3,864
1870	7th Duke of Devonshire	74	74	1,511	3,764
1871	8th Lord Vernon	72	74	1,589	3,866
1872	Sir W. W. Wynn, Bart., M.P.	71	73	1,635	3,933
1873	Earl Ouburn	74	62	1,832	3,939
1874	Mr. Edward Holland	78	58	1,844	3,756
1875	Viscount Bridport	79	79	2,058	3,918
1876	2nd Lord Chesham	83	78	2,184	4,013
1877	Lord Skelmersdale	81	76	2,239	4,073
1878	Cvt. Kingscote, C.B., M.P.	81	72	2,328	4,159
1879	H.R.H. The Prince of Wales, K.G.	81	72	2,453	4,700
1880	9th Duke of Bedford	83	70	2,673	5,083
1881	Mr. William Wells	85	69	2,765	5,011
1882	Mr. John Dent Dent	82	71	2,849	5,059
1883	8th Duke of Richmond and Gordon	78	71	2,979	4,652
1884	Sir Brundreth Gibbs	72	72	3,203	5,405
1885	Sir M. Lopes, Bart., M.P.	71	69	3,356	5,619
1886	H.R.H. The Prince of Wales, K.G.	70	61	3,414	5,569
1887	Lord Egerton of Tatton	71	64	3,450	5,387
1888	Sir M. W. Ridley, Bart., M.P.	66	58	3,521	5,225
1889	H.R. MAJESTY QUEEN VICTORIA	73	58	3,567	7,153
1890	Lord Moreton	122	58	3,846	6,941
1891	2nd Earl of Ravensworth	117	60	3,811	6,921
1892	Earl of Feversham	111	69	3,764	7,068
1893	1st Duke of Westminster, K.G.	107	74	3,796	7,133
1894	8th Duke of Devonshire, K.G.	113	73	3,798	7,212
1895	Sir J. H. Thoroald, Bart.	120	80	3,747	7,179
1896	Sir Walter Gilbey, Bart.	126	83	3,695	7,253
1897	H.R.H. The Duke of York, K.G.	126	83	3,705	7,285
1898	5th Earl Spencer, K.G.	121	86	3,687	7,182
1899	Earl of Coventry	116	75	3,656	7,009
1900	H.R.H. The Prince of Wales, K.G.	111	71	3,628	6,832
1901	3rd Earl Cavdore	102	70	3,584	6,938
1902	H.R.H. Prince Christian, K.G.	100	69	3,560	5,655
1903	H.R.H. The Prince of Wales, K.G.	90	62	3,459	5,771
1904	16th Earl of Derby, K.G.	90	68	3,375	5,906
1905	Lord Middleton	89	78	3,212	5,768
1906	Mr. F. S. W. Cornwallis	94	155	3,132	5,189
1907	Earl of Yarborough	91	174	3,076	5,299
1908	Duke of Devonshire	89	173	3,019	6,442
1909	Earl of Jersey, G.C.B.	91	177	2,951	6,696
1910	Sir Gilbert Greenall, Bart.	86	166	2,878	6,934
1911	HIS MAJESTY KING GEORGE V.	85	168	2,865	7,191
1912	Lord Middleton	85	170	2,741	7,283
1913	Earl of Northbrook	89	168	2,691	7,474
1914	Earl of Powis	89	173	2,626	7,629

**STATEMENT made to the Council by the Chairman
of the Finance Committee, on presenting the
Accounts for the year 1914.**

Mr. ADAMS, in presenting, on behalf of the Finance Committee, the accounts of the Society for the year 1914, said that he would not have to detain the Council very long over the accounts, as there was nothing very much in them to remark on. He would ask the Council first to take the statement of ordinary income and expenditure for 1914, from which it would be seen that the income amounted to 10,369*l*. It would be noticed, under the head of Miscellaneous, that the interest on daily balances showed a considerable reduction, which was partly due to the bank rate in the early part of last year being as low as 3½ per cent. Another explanation was that there was no large profit on the Shrewsbury Show to increase the Society's balance at the bank as in 1913. On the other hand, they would observe that there was a considerable increase of 274*l*. in respect of the income on investments.

The expenditure for the year amounted to 9,771*l*. There was one item he had to remark on, and he pleaded guilty as a member of the Journal Committee himself: they had exceeded their estimated allowance in the production of Vol. 74 of the Journal by 210*l*., which was very serious. The Journal Committee produced a very good Journal, with 120 extra pages, and he thought it was owing to literary and pictorial zeal and to their own forgetfulness of the limitations of the grant. He was sure that the Journal Committee would in future try to keep within proper bounds. There had been an expenditure of 315*l*. in connection with the "Elements of Agriculture," which was reprinted every two or three years, and which was a very profitable investment, all the money coming back again with a profit. The balance for the year was 598*l*. As a rule they had been able to put that balance to the Reserve Fund, but unfortunately, owing to the loss on the Shrewsbury Show, the balance had to go to help meet that deficit.

With regard to the balance-sheet there was nothing to remark, except the serious fall in the value of their investments. The fall was very considerable, and he thought the time was coming when the Finance Committee would have to consider whether it would not be better to write them down. The investments, as entered in the balance-sheet at cost, amounted to 52,828*l*., but the present value, which is also given, was only 45,032*l*., showing a reduction in value of 7,796*l*.

The estimate of receipts and expenditure for the year was as follows:—

FORECAST OF ORDINARY RECEIPTS AND EXPENDITURE FOR 1915.
(Other than in respect of the Show.)

Prepared by direction of the Finance Committee on the basis of the Recommendations of September 21, 1915, made by the Special Committee.

Actual Figures for 1914.	Receipts.	£
835	From Subscriptions for 1915 of Governors and Members	8,300
111	From Interest on Daily Balances	50
157	From Interest on Investments	1,460
296	From Sales of Text Book, Pamphlets, &c.	200
(This does not include the sales of Journals which are deducted from the cost of production.)		
		10,010

Expenditure.

£		£
1,530	Salaries of Secretary and Official Staff	153
140	Pensions to Officials	14
794	Rent, Lighting, Cleaning, Wages, &c. (say)	79
556	Printing and Stationery	55
161	Postage and Telegrams	16
256	Miscellaneous	25
1,001	Journal	100
761	Chemical Department	76
250	Botanical Department	25
200	Zoological Department	20
402	Veterinary Department	40
189	Examinations for National Diploma (R.A.S.E. Share)	18
2,500	Contribution from Subscriptions to Show Fund	250
8,880		888

Exceptional Expenditure.

£		£
--	Donation to the Prince of Wales's Fund	15
31	Hills' Bequest—Excess Expenditure for 1914	3
--	Index to Journal	16
150	Contribution towards Woburn Farm	15
26	Subscription to <i>Veterinary Congress</i>	2
25	<i>Catalogue for Library</i>	--
315	<i>Printing Text Book</i>	--
71	<i>Deficit on Woburn Farm</i>	--
50	<i>Contribution to Lewis' Centenary Fund</i>	--
37	<i>Advertising Grain Show</i>	--
186	<i>Awards for Agricultural Skilled Labour</i>	--
9,771		971
		£
	Estimated Receipts	10,026
	Estimated Expenditure	9,851
568	Estimated Receipts over Expenditure	79

He thought that the contribution of 150*l.* towards the Woburn Farm met the request put forward by the Woburn Committee that the grant should be the same as last year. Dealing with Woburn, he would like to say that they had increased their expenditure very considerably. When the affairs of the Society were in a bad way, and the cost of the different branches of the Society cut down, the total expenditure on Woburn was 737*l.* In 1912 they increased Dr. Voelcker's salary by 150*l.*, bringing the total up to 887*l.* In 1914 they again increased the vote by another 150*l.*, making a total grant for that year of 1,036*l.* He thought the explanation of that last increase was that the Dukes of Bedford very generously used to run the Woburn Farm, but that when the Development Commission was appointed the present Duke naturally said that he thought they should take it over. The Duke used to give 600*l.* per annum, and occasionally to pay deficits, but they had never been able to get out of the Development Commission more than 500*l.*, which left a deficit of 100*l.* They threw in another 50*l.* for the expenditure on a grass farm taken over a few years ago. Altogether the increased expenditure on the Chemical and Woburn Department was no less a sum than 300*l.*, the expenditure in 1911 being 737*l.*, and last year 1,036*l.*

Royal Agricultural Society of England.

STATEMENT OF FUNDS HELD BY THE SOCIETY IN TRUST OR WHICH ARE NOT CONSIDERED AVAILABLE FOR GENERAL PURPOSES, DECEMBER 31, 1914.

To Hills' Bequest for Pot-culture Experiments	£	s	d		£	s	d
					9,000	0	0
To Fund provided by Sir Walter Gilbey for Endowment of Lectureship at Cambridge until July 31, 1917, when any balance on this account will become the property of the Society					1,038	7	10
					£1,038	7	10
To Superannuation and Insurance Fund :— Amount set aside in accordance with Declaration of Trust of July 26, 1911					9,171	5	0
Accumulations to December 31, 1914					371	2	4
					£9,545	7	4
By S.1267. 8s. 2d. Consols at cost					9,000	0	0
By 1,1407. Metropolitan Water A Stock at cost					998	1	0
By amount included in the Society's Sundry Creditors' Account :— Fund uninvested					1	19	0
Accumulated income					58	7	10
					£1,058	7	10
By Investments in names of Trustees of Superannuation and Insurance Funds viz :— (Value on December 31, 1914, at 68½ = £7,535 0 0). 1771. 2s. 9d. West Australian 3½% at cost					9,171	5	0
537. 10s. 8d. Queensland 3½% at cost					163	14	11
Cash at Bank					77	7	11
					132	19	6
					£9,545	7	4

Examined, audited, and found correct, this 21st day of January, 1915.

THOMAS M. ROW, Secretary.
WELTON, JONES & CO., Accountants.

JONAS M. WEBB,
HUBERT J. GREENWOOD, } Auditors on behalf of the Society.

ROYAL AGRICULTURAL SOCIETY BALANCE-SHEET

Dr.

Corresponding Debit for 1913.		£	s.	d.
5	To SUNDRY CREDITORS—			
2,667	Sundry Creditors	31	13	0
90	Subscriptions received in 1914 in advance	2	0	0
1,538	Show Receipts received in 1914 and belonging to 1915	2	0	0
4,295				1
	To CAPITAL—			
51,478	As at December 31, 1913	68	15	0
	SHOW FUND—			
	Loss on Shrewsbury Show	3,616	13	1
5,615	Less Contribution from Ordinary Account	2,500	0	0
				1,116 13 1
				56,950 13 11
799	Life Compositions received in 1914	56	0	0
52	Donations towards the Society's Funds	51	1	0
552	Credit Balance on Ordinary Income and Expenditure Account	56	5	5
58,406				58,175 0 4
	DEPRECIATIONS written off, viz. :—			
29	Fixtures	28	8	10
116	Furniture	104	4	5
6	Machinery	5	17	11
149	Show Plant	134	2	1
50	Buildings at Woburn	60	0	0
350				329 13 2
58,056				57 11
562,351				

THOMAS McGROW, Secretary.
WELTON, JONES & CO., Accountants.

CITY OF ENGLAND.

DECEMBER 31, 1914.

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Cr.

By RESERVE FUND—

	£	s.	d.	£	s.	d.
53,119l. Consols. at cost (average cost 83½)				44,028	15	0
(Value on December 31, 1914 @ 88½ = 56,382l. 8s. 1d.)						
2840l. 13s. 6d. Metropolitan 5 per cent. Consolidated Stock at 87½				2,500	0	0
(Value on December 31, 1914 @ 84½ = 2,400l. 7s. 5d.)						
6,528l. 1s. 6d. Canadian 4 per cent. Stock at 84½				8,300	0	0
(Value on December 31, 1914 @ 85½ = 6,250l. 12s. 7d.)						

By LEASE OF 16 BEDFORD SQUARE

	2,300	0	0			
Less Amount written off	100	0	0			
				2,200	0	0

By FIXTURES—

Value at December 31, 1913	352	11	3			
Less Depreciation at 7½ per cent.	26	8	10			
				326	2	3

By FURNITURE—

Value at December 31, 1913	1,012	4	8			
Less Depreciation at 10 per cent.	104	4	5			
				908	0	3

By PICTURES (500l.) and BOOKS (1,000l.).

1,500 0 0

By MACHINERY—

Value at December 31, 1913	58	10	6			
Less Depreciation at 10 per cent.	5	17	11			
				53	1	7

By SHOW PLANT—

Value at December 31, 1913	1,341	1	2			
Less Depreciation at 10 per cent.	134	2	1			
	1,206	19	1			
Added during 1914	54	3	9			
				1,261	2	10

By BUILDINGS FOR POT EXPERIMENTS AT WOBURN—

As per Account at December 31, 1913	300	0	0			
Less Depreciation	50	0	0			
				250	0	0

By SUNDRY DEBTORS

1,506 13 10

By CASH AT BANKERS AND IN HAND—

Ordinary Account	715	6	10			
In Hand	57	1	11			
				772	8	9

261,636 4 8

Examined, audited, and found correct, this 21st day of January, 1915.

JONAS M. WEBB. }
HUBERT J. GREENWOOD. } *Auditors on behalf of the Society*

EXPENDITURE FOR THE YEAR 1914.

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all liabilities in connection with the year's transactions.

Expenditure.

GENERAL ADMINISTRATION:—		£	s.	d.	£	s.	d.
Salaries of Official Staff		1,559	0	0			
Pensions to Officials		120	0	0			
Professional Charges:—Auditors' Fees		5	15	0			
Rent, Rates, Taxes, Insurance, and House Expenses		794	0	1			
Purchase of Books		12	18	4			
Printing and Stationery		355	18	3			
Postage and Telegrams		160	15	5			
Carriage of Parcels and Travelling Expenses (including annual visit to Woburn)		75	3	1			
Advertising and Miscellaneous Office Expenses		77	18	8			
					3,454	8	10
JOURNAL OF THE SOCIETY, VOL. 75:—		£	s.	d.	<td></td> <td></td>		
Printing and Binding		508	17	9			
Postage, Packing, and Delivery		205	0	0			
Editing and Literary Contributions		230	0	0			
Illustrations		45	0	0			
		1,188	17	9			
Less Sales (Vol. 74 and earlier)		88	17	9			
Advertisements (Vol. 75)		250	0	0			
					318	17	9
Excess Expenditure in production of Vol. 74:—					880	0	0
Printing Journal		189	7	9			
Under estimate for Advertisements		21	1	4			
					210	9	1
ELEMENTS OF AGRICULTURE:—							
Printing and Binding New Edition					315	0	11
PAMPHLETS:—							
Printing, &c.					32	5	3
LABORATORY:—							
Salaries, Wages, &c.					761	10	5
OTHER SCIENTIFIC DEPARTMENTS:—							
Botanist's Salary		250	0	0			
Zoologist's Salary		200	0	0			
Grant to Royal Veterinary College		400	0	0			
Medals for Proficiency in Cattle Pathology		2	6	6			
					852	6	6
NATIONAL DIPLOMA IN AGRICULTURE:—							
Honoraria and Expenses of Examiners		182	2	4			
Travelling Expenses of Officials		58	19	7			
Hotel Expenses of Examiners and Officials		50	16	4			
Printing, Stationery, and Postage		35	16	3			
Writing Diplomas		13	14	6			
Salaries for Assistants		74	10	0			
		415	19	0			
Less Entry Fees and Sales of Examination Papers		160	13	3			
		255	5	9			
Less Highland and Agricultural Society's Society		127	12	10			
					127	12	11
NATIONAL DIPLOMA IN DAIRYING:—							
Hire of Premises, &c.		19	18	6			
Fees to Examiners		46	7	2			
Hotel and Travelling Expenses		22	17	11			
Printing and Postage		7	18	0			
		97	1	7			
Less Entry Fees and Sales of Examination Papers		35	16	6			
					61	5	1
EXTRA EXPENDITURE:—							
Subscription to Veterinary Congress		26	5	0			
Catalogue for Library		25	0	0			
Net deficit on Woburn Farm for past four years		71	0	0			
Contribution to Lawes Centenary Fund		50	0	0			
Contribution towards Woburn Farm		154	0	0			
Hills' Bequest:—Excess expenditure for 1913		31	8	2			
Advertising Grain Show		36	19	0			
Awards for Agricultural Skilled Labour		185	12	3			
		876	4	5			
CONTRIBUTION TO SHOW FUND		2,500	0	0			
CREDIT BALANCE CARRIED TO BALANCE-SHEET		588	5	5			
		£10,369	8	10			

Examined, audited, and found correct, this 21st day of January, 1915.

JONAS M. WEBB,
HUBERT J. GREENWOOD, } Auditors on behalf of the Society.

xiv STATEMENT OF RECEIPTS AND EXPENSES

JUNE 30

Corresponding figures for 1914.

		Receipts.			
				£	s. d.
£					
2,000		Subscription from Shrewsbury Local Committee.			2,000
2,278		Prizes given by Agricultural and Breed Societies		2,495	1 0
1,940		Do. do. Shrewsbury Local Committee		2,183	1 0
4,218					4,673
100					
FEES FOR ENTRY OF IMPLEMENTS:—					
7,246		Implement Exhibitors' Payments for Shedding		6,581	10 0
214		Non-Members' Fees for Entry of Implements		134	0 0
49		Fees for Entry of "New Implements"		53	0 0
7,509					6,768
FEES FOR ENTRY OF LIVE STOCK:—					
2,576		By 3,192 Members' Entries @ 11.		3,192	0 0
8		33 Substituted Entries @ 5s.		8	0 0
420		By 183 Non-Members' Entries @ 21.		386	0 0
598		Horse Boxes (683 @ 11.; 65 @ 31.)		813	0 0
23		64 Entries @ 10s.		32	0 0
56		300 Entries @ 5s.		75	0 0
3,781					4,486 1
FEES FOR ENTRY OF POULTRY:—					
31		By Members:—374 Entries @ 2s. 6d.		46	15 0
208		By Non-Members:—299 Entries @ 3s. 6d.		174	16 6
239					321 11
OTHER ENTRY FEES:—					
87		Produce		103	5 6
72		Horse-shoeing Competitions		53	0 0
26		Butter-making Competitions		7	10 0
71		Horse-jumping Competitions		82	0 0
72		Farm Prize Competitions		87	0 0
22		Plantations Competitions		65	2 0
250					397 17
CATALOGUE:—					
18		Extra Lines for Particulars of Implement Exhibits		14	15 0
5		Woodcuts of "New Implements"		5	6 3
437		Advertising in Catalogue		497	5 6
10		Sales of Implement Section of Catalogue		19	0 7
652		Sales of Combined Catalogue		551	2 5
18		Sales of Jumping Programme		15	0 0
1,149				1,102	9 7
34		Less Commission on Sales		28	19 6
1,115					1,073 11
MISCELLANEOUS RECEIPTS:—					
621		Admission to Arboricultural Exhibition		18	9 6
142		Admission to Garage		78	9 9
10		Admission to Dog Show (25 % of net takings)		13	6 9
75		Premium for Supply of Refreshments		75	0 0
94		Rent for Railway Offices		100	10 0
60		Premium for Cloak Rooms		60	0 0
30		Rent for Board of Agriculture Pavilion		30	0 0
129		Advertisements in Stock Schedule		114	2 4
12		Advertisements in Showyard		10	0 0
7		Miscellaneous		3	0 9
1,199					500 11 1
2,506 11		Carried forward			£28,127 4 1

THE OF THE SHOW AT SHREWSBURY, BY 4, 1914.

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Expenditure.

COST OF ERECTION OF SHOWYARD:—		£	s.	d.	£	s.	d.
Transferring Society's Permanent Buildings from Bristol to Shrewsbury (including taking down and re-erecting)	1,428	11	4				
Fencing round Showyard	528	6	11				
Implement Shedding	1,369	3	1				
Stock Shedding	3,872	9	6				
Poultry and Produce Sheds	273	13	5				
Dairy	317	10	1				
Fodder Shed and Office	85	17	2				
Grand Stand and Large Ring	340	14	1				
Horse-shoeing Shed and Stabling	134	2	5				
Various Offices and Stands	557	4	6				
Printing Signs and Fixings do. Fencing and Judging Rings	417	6	5				
Education and Forestry Exhibition	363	9	6				
Insurance	37	19	1				
Ironmongery	18	12	5				
Hire of Canvas	1,231	15	5				
General Labour and Horse Hire (including Society's Clerk of Works)	656	2	2				
				11,823	15	6	
Less 80 Flag Poles at 10s.				40	0	0	
					11,883	15	6
SURVEYOR:—							
Salary, 300l.; Assistant Surveyor's Salary, 100l.; Travelling Expenses (to London, 31l. 10s.)					431	10	0
PRINTING:—							
Printing of Prize Sheets, Entry Forms, Admission Orders, Circulars to Exhibitors, Prize Cards, &c., Tickets, and Miscellaneous	673	9	1				
Programmes for Members	60	15	0				
Plans of Showyard	12	11	6				
Printing of Catalogues	849	14	1				
Binding of Catalogues	82	11	6				
Carriage of Catalogues	51	16	4				
Printing Awards	141	18	9				
Programmes of Jumping Competitions	14	10	0				
				1,920	6	3	
ADVERTISING:—							
Advertising Closing of Entries in Newspapers	186	9	7				
Advertising Show in Newspapers	651	17	3				
Bill Posting	546	1	0				
Printing of Posters, &c.	323	7	11				
Press Agent	39	18	6				
Press Luncheon	42	1	0				
				1,788	16	3	
POSTAGE, CARRIAGE, &c.:—							
General Postage	112	0	3				
Postage of Badges to Members	39	18	2				
Carriage of Luggage	14	4	9				
				166	8	3	
AMOUNT OF MONEY PRIZES AWARDED, including 4,678l. 4s. 6d. given by various Societies and Shrewsbury Local Committee (see receipt per contra).					10,864	8	0
Gold Cup.					82	10	0
COST OF FORAGE FOR LIVE STOCK:—							
Hay, 270l. 8s.; Straw, 656l.; Green Food, 444l. 2s. 6d.; Labour, 42l. 1s. 6d.; Commission on Sales, 3l. 1s. 6d.; Insurance, 4l. 8s. 9d.; Steward's Travelling Expenses, 22l. 2s. 6d.; Miscellaneous, 5l. 5s. 6d.	1,447	10	3				
Less Sales	33	18	0				
				1,413	12	3	
JUDGES' FEES AND EXPENSES:—							
Judges of Miscellaneous Implements, 13l. 8s. 3d.; Horses, 109l. 9s. 4d.; Cattle, 142l. 5s. 6d.; Sheep, 155l. 3s. 8d.; Pigs, 30l. 6s. 3d.; Poultry, 29l. 5s. 3d.; Butter, 3l. 13s. 6d.; Buttermaking, 10l. 1s.; Cheese, 10l. 6s. 6d.; Bacon and Ham, 2l. 18s.; Cider and Perry, 12l. 18s. 5d.; Preserved Fruits, 5l. 2s.; Wool, 3l. 12s.; Horse-shoeing, 29l. 12s. 5d.; Luncheons, 42l. 5s.					606	10	7
Badges for Judges and other Officials					42	14	3
Rosettes					66	9	6
					634	635	1
Carried forward							

STATEMENT OF RECEIPTS AND EXPENDITURE

Corresponding
figures
for 1918
£
20,551

Receipts (contd.).

	Brought forward	£ 20,127
ADMISSIONS TO SHOWYARD:—		
438	Tuesday, June 30, @ 5s.	519 0
2,073	Wednesday, July 1, @ 2s. 6d.	1,535 0
3,096	Thursday, July 2, @ 2s. 6d.	2,369 0
3,586	Friday, July 3, @ 1s.	1,817 0
2,683	Saturday, July 4, @ 1s.	668 0
554	Season Tickets	388 0
420	Day Tickets	154 0
12,250		7,475 0
ENTRANCES TO HORSE RING:—		
190	Wednesday, July 1	169 13 0
209	Thursday, July 2	149 0 0
255	Friday, July 3	145 0 0
146	Saturday, July 4	47 0 0
577	Tickets sold for Reserved Enclosure	461 13 0
367		972 0
SALES:—		
209	Sales of Produce at Dairy	141
375	Auction Sales in Showyard and Share of Commission	260
		28 0 0

Debit Balance

3,516 0

£24,712

£32,598 10

Examined, audited, and found correct, this 26th day of November, 1918.

THOMAS MCROW, Secretary.

WELTON, JONES & CO., Accountants.

JONAS M. WEBB,

H. J. GREENWOOD,

NEWELL P. SQUAREY,

THE SHOW AT SHREWSBURY (continued).

xvii

Expenditure (contd.).

Brought forward.		E. 8. d.	£. s. d.
GENERAL ADMINISTRATION:—			28,635 1 8
Stewards:—Personal and Railway Expenses		111 20 7	
Assistant Stewards:—Personal and Railway Expenses		173 5 8	
Official Staff:—Extra Clerks, 88s. 6d. 4d.; Lodgings, 34s. 11s. 6d.; Maintenance of Clerks, 30s. 6d. 4d.; Travelling Expenses, 8l. 7s. 10d.; Secretary's Hotel and Travelling Expenses, 68s. 10s. 11d.		238 17 4	
Finance Office:—Superintendent of Turnstiles, 9l. 18s. 11d.; Grand Stand Men, 30l. 10s. 6d.; Turnstile Men, 31l. 0s. Bank Clerks, 25l. 7s. 6d.		94 16 11	
Awards Office:—Clerks, 33s. 2s. 7d.; Awards Boys, 9l. 12s. 6d.; Refreshments, 4l.		46 15 1	
General Management:—			668 5 7
Foreman and Assistant Foremen		125 2 10	
Yardmen and Foidermen		5 5 0	
Door and Gate Keepers		80 1 5	
Veterinary Department:—Veterinary Inspectors		101 6 6	
Engineering Department:—Consulting Engineer and Assistants, 116s. 0s. 1d.; House and Maintenance, 17l. 13s. 11d. Police, 62s. Metropolitan Police, 612l. 11s. 9d.; Commissioners, 32l. 8s. 8d.		135 14 0	
		645 0 5	
			1,154 11 2
Dairy:—Staff, 150l. 13s. 4d.; Milk, 116l. 15s. 8d.; Ice, 19l. 10s. Cream, 24l. 16s. 11d.; Utensils, 49l. 13s. 3d.; Salt, 4s. 15s. 6d.; Engine, 11l. 13s. 3d.; Butter Tests, 26s. 6d. 9d.; Purveys of Cheese, 3s. 10s. 10d.; Lodgings, 7l. 1s. 6d.; Carriage, 9l. 2s. 7d.; Butter and Cheese Boxes, 3l. 6s. 9d.; Milk Analysis, 11s. 13s. 10d.; Refreshments, 11s. 3s. 7d.; Bolting, 19l. 1s. 6d.; Labour, 15l. 1s. 8d.; Fuel, 21s. 7s. 6d.; Miscellaneous, 7s. 8s. 3d.		540 3 5	
Analysis of Cider		6 0 0	
Poultry:—Superintendent and Assistant, 20l. 6s. 7d.; Punning and Feeding, 22l. 19s. 3d.; Labour, 12l. 13s. 8d.; Carriage, 14l. 3s. 3d.; Baskets, 17s. 10d.		71 0 7	
Horse-shoeing:—Hire of Forge, 24l. 2s. 6d.; Granitiles, 7l. 2s. 8d.; Wages, 4l. 10s. 6d.; Hire of Horses, 3l. 1s. Fuel, 3l. 10s. 6d.		39 7 11	
Farm Prize Competition:—Expenses of Judging Farms			620 11 9
Agricultural:—Hire of Tent, 61l. 11s. 11d.; Judges, 81s. 4s. 4d.; Stewards, 17l. 17s. 9s. 7d.; Wages, 72l. 13s. 7s. 4d.; Sand, 11l. 15s. 6d.; Medals, 15l. 4s. 11d.; Printing, 13l. 13s.; Advertising, 11s. 1s.; Carriage, 11s. 8s. 6d.; Miscellaneous, 11s.		374 16 2	
(For Admissions see Miscellaneous Receipts.)			221 1 8
Plantations Commission.			109 18 0
GENERAL SHOWYARD EXPENSES:—			
Band		10 0 0	
Official Luachrons		29 10 0	
Ambulance		39 19 7	
Telephone Extension		89 2 0	
Telegraph Extension		60 5 3	
Hire of Chairs		51 5 5	
Plans of Showyard		31 18 0	
Hire of Furniture		88 19 6	
Education and Forestry		25 14 2	
Bilposting in Showyard		19 10 0	
Fuel		16 16 0	
Medals		20 12 11	
Carriage		14 16 5	
Bathehairmen		16 16 8	
Taxi		5 7 0	
Hire of Sails		5 1 1	
Towels		7 10 0	
Wool Demonstration		8 18 5	
Hire of Weighbridge		11 4 4	
Miscellaneous		42 16 1	
Outstanding Accounts from Bristol Show			798 9 6
			12 15 10

Actual loss on the Shrewsbury Show

Less:—Contribution from the Ordinary Funds of the Society to the Show Fund

23.616 13 1

2540 0 0

81,116 18 1

SHREWSBURY SHOW, 1914.

Statement showing the distribution of the Prizes awarded in the several sections of the Shrewsbury Show, with comparative figures of the Bristol Show, 1913.

Corresponding figures for 1913.	STATEMENT OF PRIZES AWARDED:—		
£		£	s. d.
2,954	Horses	3,233	0 0
2,709	Cattle	3,020	10 0
1,766	Sheep	2,127	10 0
718	Pigs	725	15 0
416	Poultry	468	10 0
125	Cheese and Butter	116	0 0
—	Bacon and Hams	47	0 0
49	Cider and Perry	43	0 0
64	Wool	88	0 0
—	Bottled Fruit	21	0 0
57	Horse-shoeing	46	10 0
94	Butter-making	56	0 0
500	Farms	470	0 0
250	Horticulture	51	10 0
40	Contribution to Bee Department	40	0 0
9,741		10,554	5 0
2,278	Less:—Prizes given by various Societies, &c.	2,495	4 0
1,940	Prizes given by Shrewsbury Local Committee	2,183	0 0
4,218		4,678	4 0
5,523		£5,876	1 0

Copies of the full Report of any of the Council Meetings held during the year 1914 may be obtained on application to the Secretary, at 16 Bedford Square, London, W.C.]

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

Minutes of the Council.

WEDNESDAY, FEBRUARY 4, 1914.

At a Monthly Council, held at 16 Bedford Square, London, W.C., the Earl of Powis (President) in the Chair:—

Present:—Trustees.—Sir J. B. Bowen-Jones, Bart., the Earl of Coventry, Lord Moreton, the Earl of Northbrook.

Vice-Presidents.—Mr. C. R. W. Adeane, Mr. Percy Crutcheley, the Right Hon. Sir A. R. Fellowes, K.C.V.O., Mr. R. M. Graves, Sir Gilbert Greenall, Bart., C.V.O., the Hon. C. T. Parker, the Earl of Yarborough.

Other Members of the Council.—Mr. D. T. Alexander, Mr. T. L. Aveling, Mr. H. Dent Brocklehurst, Mr. Davis Brown, Mr. Richardson Carr, Mr. W. W. Chapman, Mr. John Evens, Sir Howard Frank, Lord Harlech, Mr. Joseph Harris, Mr. W. Harrison, Lord Hastings, Sir Arthur G. Hazlebigg, Bart., Mr. R. W. Hobbs, Mr. W. F. Ingram, Mr. Dunbar Kelly, Mr. Alfred Mansell, Mr. Ernest Mathews, Mr. W. A. May, Mr. C. Middleton, Mr. G. Norris Midwood, Mr. T. H. Miller, Mr. John Myatt, Mr. Henry Overman, Mr. E. G. Patterson, Mr. A. W. Perkin, Mr. C. M. S. Pilkington, Mr. H. P. Plumptre, Mr. G. G. Rea, Mr. F. Reynard, the Duke of Richmond and Gordon, K.G., Mr. C. C. Rogers, Mr. John Rowell, Mr. Fred Smith, Mr. E. W. Stanforth, Mr. C. W. Tindall, Mr. A. P. Turner, and Mr. E. V. V. Wheeler.

The following Members of the Shrewsbury Local Committee were also present:—The Mayor of Shrewsbury, Mr. Beville Stanier, M.P., and Mr. E. Clothier (Local Secretary).

The Earl of Powis, on taking the Chair for the first time, thanked the Council for the honour they had done him in electing him President. He was aware that he did not hold the usual qualifications of those who had occupied the Chair. He knew that generally they had elected somebody who had served them for a long time and given distinguished services on the Council, and had also been an experienced agriculturist. He was afraid he could lay claim to neither of those qualifications, but he would endeavour by energy and attention to make up as far as possible for the lack of qualification. He hoped, with their assistance, that the year 1914 and the visit of the Society to Shrewsbury would be among the most successful in the annals of the Society. He could assure them that the Local Committee was doing everything in its power to make the visit of the Society a success, and to give every convenience for its visit to the town of Shrewsbury. He thanked them once more for the great honour they had done him, and he appealed to the Council to give him their assistance and forbearance during his year of office.

The President formally announced, with much regret, the death of Mr. Martin John Sutton, who, as a Member of Council from 1888 till 1904, had taken an active part in the Society's work. Mr. Sutton at the time of his decease was a representative of the Society on the National Agricultural Examination Board, and only in the week preceding his death had been elected Chairman of that Board. He was sure that Members of Council would greatly regret the loss of one who had been closely identified with agriculture and the work of the Society for so many years, and that it would be their wish that he

should move a vote of condolence with the representatives of the late Mr. Sutton. The motion was then passed by the Council, all the Members assenting.

The minutes of the last meeting of the Council, held on December 10, 1913, were taken as read, and confirmed.

Eighty-five duly nominated candidates were admitted into the Society as Members.

The Report of the Finance Committee was received and adopted, together with the Accounts and Balance Sheet for 1913, and the Estimates for 1914.

On the recommendation of the Finance Committee, a Committee consisting of the Chairman (Mr. Adeane), Sir Gilbert Greenall, Mr. Carr, and Mr. Mansell, was appointed to discuss with an equal number of the Chemical Committee the financial conditions of the Chemical and Woburn departments.

The Report of a meeting of the Chemical and Woburn Committee held on January 21, together with a Supplementary Report passed on February 3, with regard to the Woburn Experimental Station, was received, and referred for consideration to the Joint Committee appointed to consist of Members of the Finance and Chemical Committees. The remainder of the Report of the Chemical Committee's meeting on February 3 was adopted.

[Subsequently Sir J. B. Bowen-Jones Bart., Mr. G. Norris Midwood, Mr. R. G. Patterson, and Mr. Frederick Reynard, were appointed as representatives of the Chemical and Woburn Committee to act with four members of the Finance Committee on the Special Committee appointed to discuss the financial conditions of the Chemical and Woburn departments.]

On the motion of Mr. MANSELL, seconded by Mr. STANYFORTH, it was resolved:

"That a letter be addressed to the Board of Agriculture expressing the opinion that as sheep-wash has now been reduced to comparatively narrow limits, the time has arrived when regulations of a more drastic character should be introduced by the Board with a view to the complete eradication of this disease from the country."

A Report from the Farm Prizes Committee, with regard to the Society's scheme of awards for Skilled Agricultural Labour and Long Service, was received and adopted.

Consideration was then given to the Report on the Tuberculosis Experiment. The Earl of NORTHBROOK explained that the report had been presented at the last meeting, but that any discussion had been postponed until the present meeting. The report was extremely clear, and the appendix to it gave all the details of temperatures and the various examinations, with the results of these examinations. After a discussion in which Mr. MIDDLETON, Mr. ADEANE, Mr. BROCKLEHURST, Sir JOHN McFADYEN, Mr. JOHN EVANS, and Mr. MANSELL took part, the Report was adopted.

On the motion of Mr. MAY, seconded by Mr. G. NORRIS MIDWOOD, the Council decided to contribute a sum of 50*l.* towards the Lawes and Gilbert Centenary Celebrations Fund.

SIR AILWYN FELLOWES moved, pursuant to notice:

"That in the opinion of the Council the time has now arrived when a Committee should forthwith be appointed to consider what steps could be taken to increase the membership of the Society, and in what manner the Society could be made of still more use to its Members."

Mr. PILKINGTON seconded the motion, which was adopted.

An addition to this resolution, suggested by Mr. CHAPMAN, was referred to the new Committee for consideration, together with a resolution as to Show entry fees payable by non-members, standing in Mr. Chapman's name on the agenda, which resolution was, by consent, withdrawn.

The Committee was constituted of the following:—Sir Gilbert Greenall, Honorary Director; Mr. Adeane, Chairman of the Finance Committee; Mr. Carr and Mr. Pilkington, representing land agents; Sir Howard Frank and Mr. Mansell, representing valuers and auctioneers; Mr. Overman and Mr. Robert W. Hobbs, representing tenant farmers; Mr. Harrison, representing implement manufacturers; Mr. W. W. Chapman and Sir Ailwyn Fellowes: with power to add to their number.

On a motion from the Chair, the seal of the Society was ordered to be affixed to four documents in connection with the investment of £6,300, authorised at the last meeting of the Council.

The Council then adjourned until Wednesday, March 4.

WEDNESDAY, MARCH 4, 1914.

At a Monthly Council, held at 16 Bedford Square, London, W.C., the Earl of Powis (President) in the Chair:—

Present:—Trustees.—H.R.H. Prince Christian, K.G., Sir J. B. Bowen-Jones, Bart., Mr. F. S. W. Cornwallis, the Earl of Coventry, Lord Moreton, the Earl of Northbrook, Sir John H. Thorold, Bart.

Vice-Presidents.—Mr. C. B. W. Adcane, Mr. Percy Crutehley, Mr. J. Marshall Dugdale, the Right Hon. Sir A. E. Fellowes, K.C.V.O., Sir Gilbert Greenall, Bart., C.V.O., the Hon. C. T. Parker.

Other Members of the Council.—Mr. H. Dent Brocklehurst, Maj.-Gen. J. F. Brocklehurst, C.V.O., C.B., Mr. Davis Brown, Mr. T. A. Buttar, Mr. W. W. Chapman, the Hon. John E. Cross, Mr. Arthur E. Evans, Sir Howard Frank, Mr. W. T. Garne, Lord Harlech, Sir Arthur G. Hazlerigg, Bart., Major H. G. Henderson, M.P., Mr. J. H. Hine, Mr. W. J. Hosken, Mr. W. F. Ingram, Mr. Dunbar Kelly, Mr. G. R. Lane-Fox, M.P., Mr. J. L. Laddington, Mr. Alfred Mansell, Mr. Ernest Mathews, Mr. W. A. May, Mr. C. Middleton, Mr. G. Norris Midwood, Mr. T. H. Miller, Mr. Henry Overman, Mr. R. G. Patterson, Mr. C. M. S. Pilkington, Mr. H. F. Plumpton, Mr. J. E. Rawlence, Mr. F. Reynard, the Duke of Richmond and Gordon, K.G., Viscount Ridley, Mr. C. C. Rogers, Mr. John Rowell, Capt. Percy W. Seward, Mr. E. W. Stanyforth, Mr. A. P. Turner, Mr. E. V. Y. Wheeler, Mr. C. W. Wilson, and Mr. L. C. Wrigley.

Governor.—Mr. Beville Stanier, M.P.

The following Members of the Shrewsbury Local Committee were present at the meeting of the General Shrewsbury Committee:—Mr. Beville Stanier, M.P., and Mr. E. Clothier (Local Secretary). An apology for non-attendance was received from Col. A. H. O. Lloyd.

The minutes of the last meeting of the Council, held on February 1, were taken as read, and confirmed.

Mr. Ernest R. Dohenham was elected a Governor, and fifty duly nominated candidates were admitted into the Society as Members.

The **PRESIDENT** said that Members of Council had doubtless all received the letter from the Secretary, in connection with Sir Aitwyn Fellowes' Committee, asking for suggestions as to the manner in which the Society might be made of still more use to its Members, and what steps might be taken to increase the membership. He would be very pleased if Members of Council would be so good as to send in their suggestions as soon as possible to Mr. McKew.

On the motion of the Earl of NORTHBROOK, seconded by the Hon. CECIL T. PARKER, the following resolution was passed, and ordered to be forwarded to the Board of Agriculture:—

"That the Council of this Society views with alarm the frequent recurrence of outbreaks of foot-and-mouth disease in various centres in Ireland, and most strongly urges that the importation of cattle, sheep and swine from Ireland should be prohibited until such time as the Board of Agriculture and Fisheries are satisfied that foot-and-mouth disease no longer exists in Ireland; and that the same prohibition should apply to the importation of hay and straw from Ireland."

Sir GILBERT GREENALL reported that the Championship Hodgey Competition had been held on February 25, at Belvidere, Sudbury, when there were thirty-two competitors. The Judges (Mr. R. C. Cooper, of Waltham, Melton Mowbray, and Mr. W. W. Hutton, of Estate Office, Kington, Warwickshire) awarded the Championship to John Eaton, of Myddle Wood, Shrewsbury (of the Whitechurch and District Agricultural and Horticultural Society), the reserve number to Robert Arnold, Stransliad, Croxeter (of the Croxeter

District of the Staffordshire Agricultural Society), and highly commended Harry Johnson, Slindon, Eccleshall (of the Eccleshall District of the Staffordshire Agricultural Society). The thanks of the Society are due to the Secretary, Mr. Mansell, and to the gentlemen who kindly acted as Assistant Secretaries for their services in connection with the competition. The competitors repaid the amounts of their railway fares, and a gratuity of 2s. 6d. was awarded by the Society to each of the unsuccessful competitors. The work of the champion, reserve number, and highly commended competitors had been tested and could be examined by visitors to the Shrewsbury Show.

The PRESIDENT read a letter from Mr. Arthur W. Sutton, acknowledging on behalf of himself and other members of the family the vote of condolence passed by the Council at their last meeting on the death of Mr. Martin J. Sutton.

Authority was given for the seal of the Society to be affixed to the diploma of Honorary Membership of Mr. Thomas F. Plowman and Monsieur Henri Saguer.

The Council then adjourned until Wednesday, April 1, 1914.

WEDNESDAY, APRIL 1, 1914.

At a Monthly Council, held at 16 Bedford Square, London, W.C., the Earl of Powis (President) in the Chair:—

Present:—Trustees.—H.R.H. Prince Christian, K.G., Sir J. B. Bowen-Jones, Bart., Mr. F. S. W. Cornwallis, the Earl of Coventry, the Duke of Devonshire, G.C.V.O., the Earl of Northbrook, Sir John H. Thorold, Bart.

Vice-Presidents.—Mr. C. R. W. Adeane, Mr. Percy Crutchley, the Right Hon. Sir A. E. Fellowes, K.C.V.O., Mr. R. M. Greaves, Sir Gilbert Grenall, Bart., C.V.O., the Hon. C. T. Parker.

Other Members of the Council.—Mr. D. T. Alexander, Mr. T. L. Aveling, Mr. H. Dent Brocklehurst, Maj.-Gen. J. F. Brocklehurst, C.V.O., C.B., Mr. Davis Brown, Mr. W. W. Chapman, the Hon. John E. Cross, Mr. Arthur E. Evans, Mr. John Evens, Mr. J. Falconer, Sir Howard Frank, Lord Harlech, Mr. W. Harrison, Sir Arthur G. Hazlerigg, Bart., Mr. R. W. Hobbs, Mr. Dunbar Kelly, Mr. G. R. Lane-Fox, M.P., Mr. J. L. Luddington, Mr. Alfred Mansell, Mr. Ernest Mathews, Mr. W. A. May, Mr. C. Middleton, Mr. G. Norris Midwood, Mr. T. H. Miller, Mr. John Myatt, Mr. Henry Overman, Mr. R. G. Patterson, Mr. C. M. S. Pilkington, Mr. H. F. Plumptre, Mr. J. E. Rawlence, Mr. F. Heynard, the Duke of Richmond and Gordon, K.G., Mr. C. C. Rogers, Captain Percy W. Seward, Mr. Fred Smith, Lord Strachie, Mr. C. W. Tindall, Mr. E. V. V. Wheeler, and Mr. C. W. Wilson.

The following Members of the Shrewsbury Local Committee were also present:—The Mayor of Shrewsbury, Mr. Beville Stanier, M.P., and Mr. E. Clothier (Local Secretary).

The minutes of the last meeting of the Council, held on March 4, 1914, were taken as read and approved. Arising out of the minutes, Lord STRACHIE asked what reply, if any, had been received from the Board of Agriculture to the letter addressed to the Board in reference to the resolution passed by the Council at their last meeting on the subject of foot-and-mouth disease. The Earl of NORTHBROOK, as Chairman of the Veterinary Committee, replied that all that had been received up to the present time was an acknowledgment of the receipt of the communication.

Mr. Reginald Herbert, of Clytha Park, Abergavenny, Lieut.-Col. Charles Lyon, of Appleton Hall, Warrington, and Lord Herbert Vane Tempest, K.C.V.O., were elected as Governors, and sixty-seven duly nominated candidates were admitted into the Society as Members.

The **PRESIDENT** said he had much pleasure in announcing to the Council that His Majesty the King had graciously consented to visit the Show at Salisbury on the Friday of the Show week—July 3.

Sir J. BOWEN BOWEN-JONES, in presenting the Report of the Chemical and Woburn Committee, said he would like to call the attention of Members of the Council to the fact that the second Calf Feeding Experiment had now come to a conclusion, and that a report on it would be ready for printing after its revision by the Committee a month hence. Considerable interest had been taken in the matter, and one Member of Council had asked for 200 copies of the Report. As others might also desire to have copies, perhaps any Member who wished to do so would advise the Secretary, so that he might order a sufficient number to be printed to meet the requirements.

On the motion of the Earl of **NORTHBROOK**, seconded by Mr. **ALFRED MANSELL**, the following resolution was unanimously passed, and ordered to be forwarded to the Board of Agriculture:—

"That this Council views with apprehension the admission into this country at the present time of Irish cattle, even when such animals have to be slaughtered at the port of debarkation.

"The Council trusts that no concessions with regard to the importation of cattle from Ireland will be made, except such as the Irish Department are prepared to reciprocate."

Mr. PILKINGTON asked whether the Veterinary Committee could have by the next meeting some figures as to the cost swine fever had been to the country. The figures had been before the Central Chamber and were most interesting. **Mr. MIDDLETON** said the figures in question were for the five years previous to the present restrictions coming into force, and for five years since. **Mr. STANTER** said the figures Mr. Middleton referred to were those given in the House of Commons last Thursday, and that they had been worked out for the years previous to 1908 and then afterwards. **Lord Northbrook** drew Mr. Pilkington's attention to the figures in the appendix to the report of the Society's Veterinary Sub-Committee as to Swine Fever, and said that if they were not what Mr. Pilkington required, he was sure the Veterinary Committee would endeavour to get further particulars. **Mr. PILKINGTON** observed that he had not seen that report.

The **SECRETARY** read a letter from Mr. Thomas F. Plowman expressing the deep appreciation of the Council of the Bath and West Society of the handsome compliment paid to that Society by the election of its Secretary and Editor as an honorary member of the R.A.S.E. Mr. Plowman added that, in common with his Council, he greatly valued the honour thus conferred and all it conveys, both on account of the regard it shows for the old Society with which he has been so long associated, and also because it indicates so kindly a feeling towards himself personally.

A letter had also been received from Monsieur Henry Saunier (Secrétaire Perpetuel, Société Nationale d'Agriculture de France) acknowledging the distinction conferred upon him by the Royal Agricultural Society in electing him an honorary member.

Other business having been transacted, the Council adjourned until Wednesday, May 6, 1914.

WEDNESDAY, MAY 6, 1914.

At a Monthly Council, held at 16 Bedford Square, London, W.C., the Earl of Powis (President) in the Chair:

Present:—*Trustees*.—Sir J. B. Bowen-Jones, Bart., the Duke of Devonshire, G.C.V.O., Lord Moreton, the Earl of Northbrook.

Vice-Presidents.—Mr. Percy Crutchley, Mr. J. Marshall Dugdale, the Right Hon. Sir A. E. Fellowes, K.C.V.O., Mr. R. M. Greaves, Sir Gilbert Guehall Bart, C.V.O.

Other Members of the Council.—MR. D. T. ALEXANDER, Mr. T. L. [unclear], Captain Clive Behrens, Mr. E. W. Betts, Mr. Davis Brown, Mr. W. W. [unclear], the Hon. John E. Cross, Mr. J. T. C. Eadie, Mr. J. Falconer, Mr. J. W. [unclear], Mr. Joseph Harris, Lord Hastings, Sir Arthur G. Hazlerigg, Bart., Major G. Henderson, M.P., Mr. J. H. Hine, Mr. Arthur Hiscock, Mr. R. W. Hobbs, Mr. Dunbar Kelly, Mr. Ernest Mathews, Mr. W. A. May, Mr. C. Middleton, Mr. G. Norris Midwood, Mr. Henry Overman, Mr. R. G. Patterson, Mr. A. W. [unclear], Mr. C. M. S. Pilkington, Mr. J. E. Rawlence, Mr. F. Reynard, Mr. C. C. [unclear], Captain Percy W. Seward, Mr. Fred Smith, Mr. E. W. Stanyforth, Lord Strachie, Mr. C. W. Tindall, Mr. Arthur P. Turner, Mr. E. V. V. Wheeler, and Mr. L. C. Wrigley.

Governor.—Mr. W. F. Holt Beaver.

The following Members of the Shrewsbury Local Committee were present:—The Mayor of Shrewsbury, Mr. Beville Stanier, M.P., and Mr. E. Clothier (Local Secretary).

Before commencing the business of the meeting, the **PRESIDENT** said he was sure that every Member of the Council would have heard with deep regret of the death of the Duke of Argyll, and would join in the sympathy which had been universally extended to H.R.H. Princess Louise, His Majesty the King, and the other members of the Royal Family in their bereavement.

The minutes of the last meeting of the Council, held on April 1, 1914, were taken as read and approved.

Mr. Stanley Baldwin, M.P., Astley Hall, near Stourport; Lord Gerald R. Grosvenor, Ash Grange, Whitechurch, Salop; and Mr. A. W. Lepper, M.A., 11 Portland Road, Oxford, were elected as Governors; and 149 duly nominated candidates were admitted into the Society as Members.

A Report was received and adopted from Sir Ailwyn Fellowes' Committee, containing a number of recommendations as to steps to be taken to increase the membership and as to further privileges to be extended to Members. Sir AILWYN FELLOWES, in presenting this Report, said the Committee were deeply grateful for the valuable suggestions received from Members of Council and others outside.

A Report was presented from the Chemical and Woburn Committee; and, on the motion of Sir J. BOWEN BOWEN-JONES, was received and adopted, with the exception of the portion relating to the Report of the Sub-Committee appointed in February to confer with members of the Finance Committee. A further motion by Sir BOWEN, that the printed Report of the Chemical Committee of February 4, as amended by the Report now presented, be received, was also agreed to. Sir BOWEN BOWEN-JONES then gave notice that at the June Council Meeting he would move that the Report—as amended—be adopted.

The Report of the Veterinary Committee was presented, and, after observations by the Earl of NORTHBROOK and the Duke of DEVONSHIRE as to a resolution received from the Royal Dublin Society, was received and adopted.

On the motion of Sir GILBERT GREENALL, Bart., seconded by Mr. C. M. S. PILKINGTON, it was unanimously resolved:—

"That the name of his Grace the Duke of Portland be submitted to the Members at the Annual General Meeting in December for election as President of the Society for the year 1915."

Other business having been transacted, the Council adjourned until Wednesday, June 10, 1914.

WEDNESDAY, JUNE 10, 1914.

At a Monthly Council, held at 16 Bedford Square, London, W.C., the Earl of POWIS (President) in the Chair:—

Present:—*Trustees.*—Sir J. B. Bowen-Jones, Bart., the Earl of Coventry, Lord Moreton, Sir John H. Thorold, Bart.

Vice-Presidents.—Mr. C. Adeane, Mr. J. Marshall Dugdale, the Right Hon. Sir A. E. Fellowes, K.C.V.O.; Mr. R. M. Greaves, the Hon. Genl T. Parker, the Earl of Yarborough.

Other Members of the Council.—Mr. T. L. Aveling, Mr. H. Dent Brocklehurst, Major-Gen. J. F. Brocklehurst, C.V.O., C.B., Mr. Davis Brown, Mr. John Evans, Mr. W. T. Garne, Lord Harlech, Mr. Joseph Harris, Mr. W. Harrison, Sir Arthur G. Hazlerigg, Bart., Mr. R. W. Hobbs, Mr. John Howard Howard, Mr. Alfred Mansell, Mr. Ernest Mathews, Mr. C. Middleton, Mr. G. Norris Midwood, Mr. Henry Overman, Mr. A. W. Perkin, Mr. C. M. S. Pilkington, Mr. G. U. Rea, Mr. F. Reynard, Mr. C. C. Rogers, Mr. E. W. Stanforth, and Lord Strachie.

Governor.—Mr. Harold Swithinbank.

The following Members of the Shrewsbury Local Committee were also present:—Mr. B. Blower, Mr. Beville Stainer, M.P., and Mr. E. Clothier (Local Secretary).

The minutes of the last Council meeting, held on May 6, 1914, were taken as read and approved.

Sir Richard A. Cooper, Bart., M.P., Eldon Lodge, Boxmoor, Mr. Roger J. Corbet, Ynys-y-Maengwyn, Towy, Merioneth, and Sir Owen C. Phillips, K.C.M.G., 76 Eaton Square, S.W., were elected as Governors, and ninety-nine duly nominated candidates were admitted into the Society as Members.

On the motion of Mr. ADEANE, seconded by Sir JOHN THOROLD, it was unanimously resolved:—

"That the Secretary be empowered to issue to any duly nominated candidate for membership of the Society, on receipt of the annual subscription, a badge admitting the candidate to the same privileges as a Member during the forthcoming Show at Shrewsbury; the formal election of such candidate to be considered by the Council at their next ordinary meeting."

Sir BOWEN BOWEN-JONES, in presenting the Report of the Chemical and Woburn Committee, said the Council would have observed that the Development Commissioners had consented to receive that afternoon a small deputation on the question of further support being given by them to an extended scheme at the Woburn Experimental Station. Under those circumstances, at the request of the President, he had suggested that the Chemical Committee should withdraw the Report they had already presented to the Council, to which course the Committee had assented. He therefore begged to withdraw that Report, and, consequently, would not proceed with the notice standing in his name on the agenda paper. It would be the duty of the Chemical Committee, after ascertaining the views of the Development Commissioners, to formulate proposals for the future permanent conduct of the Woburn Experimental Station, and, as this question affected other departments of the Society's work, they were willing, without abrogating their prerogatives, to submit their suggestions for review and report to the Special Committee, provided it dealt in the same way with the interests of the other Committees affected.

Mr. GREAVES, in presenting the Report of the Implements Committee, said the regulations for the trials of agricultural motors and ploughs, to be held next year, were set out as provisional regulations, the Committee's object being that they might be in the hands of those interested before the Show, and they might be reconsidered later in the light of any criticisms or suggestions that might be received.

The Report of the Selection Committee was received and adopted, and, on the motion of Sir JOHN THOROLD (chairman), it was unanimously resolved that Professor Edoardo Perroncito, of Turin, be elected an Honorary Member of the Society.

The SECRETARY announced that the Trustees of the "Queen Victoria Gifts" Fund had decided to make a grant to the Royal Agricultural Benevolent Institution of 140*l.* for the year 1914, to be distributed as fourteen grants of 10*l.* each to the five male candidates, five married couples, and four female candidates who polled the largest number of votes in their class, and who

would not this year receive grants from any other fund in connection with the Royal Agricultural Benevolent Institution.

Other business having been transacted, the Council adjourned until the next day, July 1, in the Shrewsbury Showyard.

WEDNESDAY, JULY 1, 1914.

At a Monthly Council, held in the Showyard at Shrewsbury, the Earl of Eglar (President) in the Chair:—

Present:—Trustees.—Sir J. B. Bowen-Jones, Bart., Mr. F. S. W. Cotton, the Earl of Coventry, Lord Middleton, Lord Moreton, the Earl of Northbrook, Sir John Thorold, Bart.

Vice-Presidents.—Mr. C. R. W. Adeane, Mr. Percy Crutchley, Mr. J. Marshall Dugdale, the Right Hon. Sir Ailwyn E. Fellowes, K.C.V.O., Mr. E. M. Greaves, Sir Gilbert Greenall, Bart., C.V.O., the Hon. Cecil T. Parker.

Other Members of Council.—Mr. D. T. Alexander, Mr. H. Dent Brocklehurst, Mr. R. G. Carden, Mr. W. W. Chapman, the Hon. J. E. Cross, Mr. J. I. C. Eadie, Mr. A. E. Evans, Mr. John Evans, Mr. J. Falconer, Mr. W. T. Garne, Lord Harlech, Mr. Joseph Harris, Lord Hastings, Sir Arthur Hazlerigg, Bart., Mr. J. H. Hine, Mr. R. W. Hobbs, Mr. W. J. Hosken, Mr. J. Howard Howard, Mr. Dunbar Kelly, Mr. J. L. Luddington, Mr. Alfred Mansell, Mr. Christopher Middleton, Mr. G. Norris Midwood, Mr. John Myatt, Mr. William Norton, Mr. Henry Overman, Mr. C. M. S. Pilkington, Mr. G. G. Bea, Mr. F. Reynard, Mr. C. C. Rogers, Mr. John Rowell, Mr. F. Smith, Mr. E. W. Stanforth, Mr. C. W. Tindall, Mr. C. W. Wilson.

The following representatives of the Shrewsbury Local Committee also attended: Mr. Beville Stanier, M.P., Mr. H. C. Clarke, Dr. Curodon, Colonel A. H. O. Lloyd, M.V.O., and Mr. Edward Clothier (Local Secretary).

The minutes of the last monthly meeting of the Council, held on June 10, were taken as read and approved.

It was resolved, on the motion of the PRESIDENT, seconded by Sir GILBERT GREENALL, Bart., C.V.O., "That the best thanks of the Society are due and are hereby tendered to:—

1. The Officials of the General Post Office for the efficient postal and telegraphic arrangements.
2. The Chief Commissioner of Police for the efficient service rendered by the detachment of Metropolitan Police on duty in the Showyard.
3. The Chief Constable of Shrewsbury for the efficient police arrangements in connection with the Show.
4. The Shrewsbury St. John Ambulance Brigade for the efficient Ambulance arrangements.
5. United Counties Bank, Ltd., Shrewsbury, for the efficient services rendered by their officials.
6. Messrs. Merryweather & Sons, Ltd., for the provision of Fire Engines and for the efficient arrangements in connection with the Fire Station in the Showyard.
7. Messrs. J. & B. Blower, Ltd., Shrewsbury, for decorating and furnishing the Royal Pavilion.
8. Mr. E. Murrell, Shrewsbury, for providing the Floral Decorations near the Pavilions, &c.
9. Messrs. Clayton & Shuttleworth, Ltd., for the loan of a Steam Engine for supplying Motive Power to the Dairy."

Letters of thanks were ordered to be addressed to various firms and individuals who had rendered assistance in connection with the Show.

Other business having been transacted, the Council adjourned until Wednesday, July 29, 1914.

General Meeting, July 1, 1914.

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**Proceedings at
General Meeting of Governors and Members,**

HELD IN THE
LARGE TENT IN THE SHOWYARD AT SHREWSBURY.

WEDNESDAY, JULY 1, 1914.

THE EARL OF POWIS (PRESIDENT) IN THE CHAIR.

Present:—Trustees.—Sir J. B. Bowen-Jones, Bart., Mr. F. S. W. Cornwallis, the Earl of Coventry, Lord Middleton, Lord Moreton, the Earl of Northbrook, Sir John Thorold, Bart.

Vice-Presidents.—Mr. C. R. W. Adeane, Mr. Percy Crotchley, Mr. J. Marshall Dugdale, the Right Hon. Sir Ailwyn E. Fellowes, K.C.V.O., Mr. R. M. Greaves, Sir Gilbert Greenall, Bart., C.V.O., the Hon. Cecil T. Parker.

Other Members of Council.—Mr. D. T. Alexander, Mr. H. Dent Brocklehurst, Mr. R. G. Carden, Mr. W. W. Chapman, the Hon. J. E. Cross, Mr. J. T. C. Eadie, Mr. A. E. Evans, Mr. John Evans, Mr. J. Falconer, Mr. W. T. Garne, Lord Harlech, Mr. Joseph Harris, Lord Hastings, Sir Arthur Hazlerigg, Bart., Mr. J. H. Hine, Mr. R. W. Hobbs, Mr. W. J. Hosken, Mr. J. Howard Howard, Mr. Dunbar Kelly, Mr. J. L. Luddington, Mr. Alfred Mansell, Mr. Christopher Middleton, Mr. G. Norris Midwood, Mr. John Myatt, Mr. William Newton, Mr. Henry Overman, Mr. C. M. S. Pilkington, Mr. G. G. Rea, Mr. F. Reynard, Mr. C. C. Rogers, Mr. John Rowell, Mr. F. Smith, Mr. E. W. Stanyforth, Mr. C. W. Tindall, and Mr. C. W. Wilson.

Governors.—Sir Arthur P. Heywood, Bart., and Mr. Colin MacIver.

Honorary Members.—Professor Sir John McFadyen.

Ordinary Members.—Messrs. R. T. G. Abbott, E. C. Barker, W. S. Barrett, A. S. Berry, F. Butter, Wm. Davies, Samuel Denson, Peter Everall, H. J. Greenwood, T. G. Heatley, P. Hurlbutt, Thomas Jones, J. Kendrick, W. H. Lander, J. S. Ledbrook, K. J. J. Mackenzie, D. MacNicol, R. B. Marsh, J. Marshall, J. M. Naylor, P. J. Neate, B. W. Pearce, F. Hamlyn Price, R. Henry Row, J. Eustace Secker, J. Shuker, J. Stirling, Richard Stratton, R. W. Tinnis, T. Shaw Tinker, George Townsend, J. Wakeman, &c., &c.

The following representatives of the Shrewsbury Local Committee also attended:—Mr. Deville Stanier, M.P., Mr. H. C. Clarke, Colonel Cinton, Lieut. Colonel A. H. O. Lloyd, M.V.O., and Mr. Edward Clothier (Local Secretary).

President's Opening Remarks.

THE PRESIDENT, in opening the proceedings, said that as that was the first time he had had the privilege of addressing the Governors and Members of the Society, he desired to take the opportunity of thanking them for the great honour they had done him in electing him President for the year. He was sure that not only himself, but all the people in Shropshire, appreciated the great compliment the Royal Agricultural Society had paid them in electing a local man as President of the Society. He was glad to be able to congratulate them on the fact that, at any rate so far, they had had magnificent weather, and they were fortunate in having such a splendid Showyard. He was also glad that, with the exception of the Society's Jubilee Show at Windsor in 1889, presided over by Queen Victoria, the live stock entries at Shrewsbury were a record. It was a great pleasure to the Council, and, he was sure, to all the Members, to see the breeds of stock more especially identified with the locality coming out so strongly in the various classes. The horses, he was told, made a magnificent show. Personally, he had not had a

chance of looking at them yet, but he understood that they were quite extraordinary both in numbers and quality. The Machinery Section was the object of more than average interest. On the present occasion their Educational and Forestry Exhibitions had reached a level never attained before, and it was sure there were many things in the Forestry department that would interest many people who came to the Show who were not agriculturists. The Show on its present scale was a new feature of the Society's Exhibitions, and the organisation of this section was largely due to the energies of the Shropshire and West Midland Society, who had given up their own Show owing to the visit of the Royal.

He would like, at that moment, to thank their Honorary Director, Sir Gilbert Greenall—(applause)—(he knew the meeting would receive Sir Gilbert's name with enthusiasm)—for the tremendous amount of work which he had put in once more in connection with the Show. (Applause.) To most of them the Show began on Tuesday and ended on Saturday, but to Sir Gilbert Greenall it thought the Show commenced on Christmas Day and ended on the following Christmas Day. (Laughter.) At the same time, he would like to say a word of thanks to the staff of that great Society for their splendid work, and the invariable civility which all Members, or anybody who wished to ask a question, received when they had occasion to go to the office. It was really extraordinary how, in trying, hot weather like that, they could keep what could be called an even temperature in the office. (Laughter.)

They were all pleased and delighted to think that His Majesty the King was to visit the Show, and that they were to have the honour of receiving him on the Friday. (Applause.) They could only trust that the present "King's weather" would continue, but he was sure they all hoped, for His Majesty's sake, that it would be a little cooler on the journey down. They were all greatly indebted to His Majesty for once more showing his great interest in agriculture, and in the agriculturists of this country. At the same time, they might congratulate His Majesty upon his signal successes in the Show ring at Shrewsbury. (Applause.)

He would like to tell those present that the attendance on the previous day was 2,166, so that they had beaten last year's figures for the opening day. He was also glad to tell them that up to 11 o'clock that morning the attendance was 4,110, compared with 3,829 at Bristol last year. So, at any rate, it showed that when they visited an agricultural district, they got their parade early in the morning. (Laughter and applause.) He desired to thank the local people—the people all round Shropshire, Montgomeryshire, and Staffordshire—for the keen interest they had evinced, and especially the people in the immediate neighbourhood of Shrewsbury. Being a resident in the county, he happened to know how much work had been put in, and with what wholeheartedness it had been done. Resolutions would, later on, be submitted to the meeting thanking the various bodies; he was sure the Council and the Members of the Society were very greatly indebted to the local people for their interest in the Show and the energy they had displayed.

He was glad to say that new Members had come up splendidly, and he desired to thank the many people who had responded to him personally when he had appealed to them either to become Members or to persuade their neighbours to join the Society.

Prizes for Farms.

The SECRETARY then read the judges' awards in the Competition for the best managed farms in Shropshire, Montgomeryshire, and Staffordshire (see Official Awards in Appendix).

Prizes for Plantations and Nurseries.

The SECRETARY also announced the awards in the Plantations and Nurseries Competitions (see Official Awards in Appendix).

Championship Hedging Competition.

The **PRESIDENT** then presented to Mr. John Eaton, of Myddle Wood, Shrewsbury, the Certificate and Silver Medal awarded to him as the winner of the Championship Hedging Competition, held under the auspices of the Society at Belvidere, Shrewsbury, on February 25 last.

Thanks to Mayor and Corporation.

Mr. F. S. W. CORNWALLIS said the first resolution which the Society always passed, and in which he was sure every Member of the Society would most cordially join, was that of their thanks to the Mayor and Corporation for their hospitable reception of the Society. (Applause.) There were probably few even in that tent, and certainly none outside it, who knew what trouble, care, and anxiety devolved upon those who welcomed the Royal Show to their midst. They had been fortunate this year in having as head of the Corporation as Chief Magistrate one who was thoroughly acquainted with the requirements of agriculture and in every way fitted to undertake that great task. They expected when they came there to that ancient city, in the midst of that great agricultural centre, to have an Exhibition second to none in the history of the Society, and their confidence in that respect had been more than justified. They wished to thank all those who had co-operated with the Mayor in welcoming them there. He could not have achieved what he had done unless he had had the hearty co-operation not only of every Member of the Corporation, but also of all the Officials, the Town Clerk, and others who served the Corporation in various capacities. To one and all of them they returned their heartfelt thanks. They thanked them for all the trouble in detail which was necessary to give the Society a Show-ground, to provide them with the sum of money which was necessary to welcome the Society, for all the details connected with the water supply, and many other things. He wished to assure them that the few words in which he proposed that resolution was no measure of the gratitude the Society felt and owed to the Mayor and all those who had so cordially co-operated with him.

Lord MORETON seconded the resolution, which was unanimously adopted.

The **MAYOR OF SHREWSBURY**, in responding, thanked the meeting for the very hearty vote of thanks accorded to him and the Borough that day. He also thanked Mr. Cornwallis for the flattering remarks he had made. As had been rightly pointed out, it was due to the Members of the Corporation and its officials, and to the Members of the Local Committees representing both the Borough and the County working in harmony, that the arrangements had so far been satisfactory. He assured them that they in the Borough of Shrewsbury thoroughly appreciated the honour which the Society had done them by holding the Show there this year. It was an honour to the Borough and also to the County. As a Borough they were a small place in the centre of a large and prosperous agricultural district, and the holding of the Show made the Borough known. It also gave a stimulus to agriculture generally and to the breeding of stock in the county and the surrounding districts. He was very pleased that so far the Show had been successful.

They were to be favoured by a visit from His Most Gracious Majesty the King, and, of course, the Borough appreciated the great honour of His Majesty passing from the station to the Show. He knew that as Members they at that meeting appreciated the honour done to the Society, but it was doubly appreciated in the Borough. As a Society they often had visits from the reigning Monarch and other Royalty. They in Shrewsbury, however, had not been honoured by a visit of a reigning monarch for 236 years. They had been favoured a few years ago by a visit from Her Most Gracious Majesty the Queen, then Princess of Wales, when she had viewed several of their old buildings and churches, and they were only sorry that she was not to accompany His Majesty on Friday. He thanked them again for the very hearty vote accorded to himself and the Corporation of Shrewsbury.

Thanks to Local Committee.

Sir GILBERT GREENALL said it was with great pleasure he rose to say that the best thanks of the Society are due and are hereby tendered to the Shrewsbury Local Committee for their exertions to promote the success of the Show. Every Member of the Local Committee had worked zealously for the success of the Show, and it was due to their exertions that the Society had been provided with one of the best sites they had ever had. They had to thank them for their co-operation with the Society in everything they had had to do in connection with that Show. Personally, he must thank the Members of the Committee for their unvarying kindness to himself, which had rendered the work much easier. They desired to thank especially the Chairman of the Local Committee, their old friend Sir Bowen Bowen-Jones, and he thought they would also like him to mention another man who had done so much for the Show—Mr. Mansell. He was a Member of their own Council, so that (Sir Gilbert) must not say too much about him. He was sure they would not like to pass this vote of thanks without mentioning the name of Mr. Clotter, the local Secretary, who had done most excellent work, and had carried out his duties to the satisfaction of everybody concerned. He also desired to convey the thanks of the Society to the Members of the Shropshire and West Midland Society, to whom they owed a deep debt of gratitude. (Applause.)

Sir JOHN THOROLD had great pleasure in seconding the resolution proposed by Sir Gilbert Greenall. Having had the pleasure of attending the last Show of the Society held at Shrewsbury he could testify to the enormous increase in the Show, and in the work done by the Local Committee.

The resolution was then put to the meeting and carried unanimously.

Sir BOWEN BOWEN-JONES, on behalf of the Local Committee, begged to return his very sincere thanks for the cordial vote passed recognising their services. The Executive Committee was not large in numbers, but they had been very energetic in their endeavours to make the Show a success. The Committee consisted of gentlemen connected with the borough as well as Members belonging to the West Midland Society, country gentlemen and farmers living in the county of Salop, and each and every one of them had used his unsparing efforts in endeavouring in every way to perfect the arrangements for the success of that Show. If they had been successful in doing that, and bringing things to a triumphant issue as the result of their endeavours, it thoroughly satisfied every Member of the Committee for the work done on the Society's behalf.

Railway Companies Thanked.

Lord HASTINGS proposed that the best thanks of the Society be given to the railway companies for the facilities afforded by them in connection with the Show. The success of the Exhibition rested very largely in the hands of the companies, whose co-operation was essential. On the present occasion the Society had had that co-operation in full measure.

Mr. FREDERICK REYNARD seconded the motion, which was duly carried.

Thanks to President.

The PRESIDENT, at this stage, inquired if any Governor or Member had any remarks to make or suggestions to offer for the Council's consideration.

No Member rising.

Mr. JOHN KENDRICK had very great pleasure in proposing a hearty vote of thanks to Lord Powis for presiding that day. Their President, he said, was so well known in that locality that it needed no words of his to commend him to the meeting, and he was quite sure they would all join with him in passing a most hearty resolution of thanks for the way in which his Lordship had presided over them that day.

Mr. W. H. LANDER rose with special pleasure to second the resolution proposed by his friend Mr. Kendrick. He was quite sure that in Lord Powis they had got the right man in the right place, and he could assure the meeting

that they in Shropshire were proud to have their Lord-Lieutenant as President of the Society for the year. He did not think that further comment was needed from him, and he would therefore sit down with the greatest satisfaction at having seconded this vote of thanks.

The SECRETARY then put the resolution, which was carried with acclamation.

The PRESIDENT thanked the meeting most heartily for the vote which they had passed. It was an honour and a pleasure to him to carry out the duties. Before he sat down, he said, he would like to mention that the Society had had great pleasure in receiving the deputation of South African farmers at luncheon on the previous day. Having presided at that function, he could tell the Members that their visitors had been a most interesting and delightful body of men to entertain; they were extremely appreciative both of the hospitality and of everything they had seen or were about to see in this country. He was sure it would do an enormous amount of good to the British Empire to bring over people of the different Colonies to see every sort of thing in the Old Country. It must have a most excellent effect both in England and in South Africa.

Might he just mention that the Show next year would be held at Nottingham, and that they had been fortunate enough to secure the Duke of Portland as President for the year. The Show would be at Manchester in 1916, and at Carlisle in 1917.

He thanked the meeting once more for so kindly passing the vote of thanks, and the proceedings then terminated.

WEDNESDAY, JULY 29, 1914.

At a Monthly Council, held at 16 Bedford Square, London, W.C., the Earl of Powis (President) in the Chair:—

Present:—Trustees.—Sir J. B. Bowen-Jones, Bart., the Duke of Devonshire, G.C.V.O., Lord Moreton, the Earl of Northbrook, Sir John H. Thorold, Bart.

Vice-Presidents.—Mr. C. Adeane, Mr. Percy Crutehley, Sir Gilbert Grenall, Bart., C.V.O., the Hon. Cecil T. Parker.

Other Members of the Council.—Mr. T. L. Aveling, Mr. H. Dent Brocklehurst, Mr. T. A. Buttar, Mr. W. W. Chapman, the Hon. J. E. Cross, Mr. John Evens, Mr. J. Falconer, Sir Howard Frank, Mr. Joseph Harris, Lord Hastings, Sir Arthur G. Hazlerigg, Bart., Mr. R. W. Hobbs, Mr. W. F. Ingram, Mr. Dunbar Kelly, Sir C. V. Knightley, Bart., Mr. G. R. Lane-Fox, M.P., Mr. J. L. Luddington, Mr. Alfred Mansell, Mr. Ernest Mathews, Mr. C. Middleton, Mr. John Myatt, Mr. W. Sutton, Mr. C. M. S. Pilkington, Lord Ranksborough, C.V.O., C.B., Mr. F. Reynard, Mr. Fred Smith, Mr. E. W. Stanforth, Lord Strachie, Mr. C. W. Tindall, Mr. A. P. Turner, and Mr. E. V. Wheeler.

The PRESIDENT, at the commencement of the proceedings, reported the receipt of the following letter:—

Buckingham Palace,

July 3, 1914.

DEAR LORD POWIS.—I am commanded by the King once more to thank you and your colleagues for the carefully planned and well carried out arrangements in connection with his visit to the Royal Agricultural Show, and also to offer his congratulations on the high standard of excellence in the exhibits of live stock, implements, and produce of the country. His Majesty was very glad to learn that this year the aggregate number of entries is the largest in the annals of the Society, with the exception of the Society's Jubilee Show, held in Windsor Great Park in 1889, under the Presidency of Queen Victoria, and the King recognises that every effort is being made to promote the study of the scientific and practical problems of modern farming.

At the same time the annual shows not only encourage a keen and healthy competition among stock owners and farmers, but also provide a happy meeting ground for a general exchange of ideas on agricultural topics.

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It was a great pleasure to His Majesty to receive so cordial a welcome from the farmers and the public attending the exhibition, and I am to assure you that His Majesty takes, as ever, the keenest interest in this premier summer show.

Yours very truly,

The Earl of Powis.

(Signed) OLIVE WILKINSON

Instructions were given for this letter to be entered upon the minutes.

The PRESIDENT also read a letter from Mr. J. A. Naser, President of the South African Farmers' Agricultural Tour, expressing thanks on behalf of himself and friends for the warm-hearted and hospitable manner in which they were received and entertained during their visit to the Shrewsbury Show. They were all impressed tremendously with the magnificence of the Show, but even more so with the great friendship and hospitality with which they were welcomed. The party had learned a great deal at the Show, which they hoped would be of benefit to themselves individually, and to South Africa as a whole.

The minutes of the last meeting of the Council, held on Wednesday, July 1, 1914, were taken as read and approved.

Mr. K. J. J. Mackenzie, 10 Richmond Road, Cambridge; Mr. Francis Meynell, Hoar Cross, Burton-on-Trent; Lieut.-Col. A. Hickman Morgan, D.S.O., 14 Grosvenor Place, S.W.; the Duke of Sunderland; Mr. Martin H. F. Sutton, Erleigh Park, Reading; and the Right Hon. Sir Raymond Tyrwhitt Wilson, Bart., Stanley, Bridgworth, were elected as Governors, and 165 duly nominated candidates were admitted into the Society as Members.

The Earl of NORTHBROOK presented the Report of the Veterinary Committee, which, with the omission of one paragraph, was received and adopted. Lord Northbrook then explained to the Council what had transpired on the occasion of a recent deputation to Mr. Runciman with regard to the regulations governing the importation of live stock into Argentina from this country. Certain draft proposals suggested by the Board of Agriculture in connection with this matter were submitted to the Council for their opinion. These draft proposals having been read, a discussion ensued, and it was eventually decided by the Council, on a show of hands, to signify their approval of the proposals put forward.

On the motion of the PRESIDENT, seconded by Sir GILBERT GREENALL, it was resolved that the Society's thanks be tendered to all the exhibitors in the Agricultural Education and Forestry sections at the recent Show.

It was also resolved, on the motion of the PRESIDENT, seconded by Sir GILBERT GREENALL, that the best thanks of the Society be conveyed to Mr. Cyril Greenall, the Hon. John Boscawen, Mr. A. A. Paton, and Mr. George Marshall, who acted as Stewards at the Show.

On the motion of Mr. ADEANE, seconded by the Earl of NORTHBROOK, it was resolved:

"That in order to facilitate the winding up of the accounts for the Shrewsbury Show as early as possible, authority be given for the issue during the recess of orders on the Society's bankers for the payment of accounts connected with the Show."

Authority was given for the Seal of the Society to be affixed to the contract for the erection of the Showyard at Nottingham.

Other business having been transacted, the Council adjourned over the autumn recess until Wednesday, November 4, 1914.

TUESDAY, SEPTEMBER 1, 1914.

A Special Meeting of the Council was held on Tuesday, September 1, 1914, at 16 Bedford Square, for the purpose of receiving a report of a special meeting of the Finance Committee held on August 25, to consider how far the financial position of the Society will be affected by the War.

In opening the proceedings, the PRESIDENT said the reason why the Finance Committee held their special meeting had been explained in the notice

continuing the Special Council, and he felt sure the circumstances warranted the action taken, for never in the history of the Society had a meeting been called in circumstances of such national importance. It was their duty to consider at this crisis how they could best serve the nation and the Society, and he felt sure that Members present would approve of the recommendation which would be placed before them in the shape of a resolution.

Letters were read from several Members of Council who were unable to be present at the meeting.

The Report of the Finance Committee having been presented, a discussion ensued; and, on the motion of the PRESIDENT, seconded by H.R.H. PRINCE CHRISTIAN, K.G., it was unanimously resolved:

"That a sum of 1,000, be contributed by the Society to the Prince of Wales' National Relief Fund."

After further discussion, the Report of the Finance Committee was received and adopted, omitting a paragraph as to proceeding with the arrangements for the Show at Nottingham next year, which question would come up for consideration at the next meeting.

WEDNESDAY, NOVEMBER 4, 1914.

At a Monthly Council, held at 16 Bedford Square, London, W.C., the Earl of POWIS (President) in the Chair:

Present:—Trustees.—Sir J. B. Bowen-Jones, Bart., the Earl of Coventry, the Duke of Devonshire, G.C.V.O., the Earl of Northbrook, Sir John H. Thorold, Bart.

Vice-Presidents.—Mr. C. Adeane, Mr. Percy Crundley, the Right Hon. Sir A. E. Fellowes, K.C.V.O., Mr. R. M. Greaves, Sir Gilbert Greenall, Bart., C.V.O., the Hon. Cecil T. Parker, the Earl of Yarborough.

Other Members of the Council.—Mr. D. T. Alexander, Mr. H. Dent Brocklehurst, Mr. Davis Brown, Mr. T. A. Buttar, Mr. R. G. Carden, Mr. W. W. Chapman, the Hon. J. E. Cross, Mr. J. T. C. Eadie, Mr. John Evans, Mr. J. Falconer, Sir Howard Frank, Mr. W. T. Garne, Lord Harlech, Sir Arthur G. Hazlerigg, Bart., Mr. J. H. Hine, Mr. A. Hiscock, Mr. B. W. Hobbs, Mr. W. F. Ingram, Sir C. V. Knightley, Bart., Mr. Alfred Mansell, Mr. Ernest Mathews, Mr. W. A. May, Mr. C. Middleton, Mr. G. Norris Midwood, Mr. T. H. Miller, Mr. John Myatt, Mr. C. M. S. Pilkington, Mr. H. F. Plumpton, Mr. F. Reynard, Mr. C. C. Rogers, Mr. Fred Smith, Mr. C. W. Tindall, and Mr. A. P. Turner.

The minutes of the last monthly meeting of the Council, held on Wednesday, July 29, and of the Special Council held on Tuesday, September 1, 1914, were taken as read and confirmed.

Mr. Arthur W. Sutton, of Bucklebury Place, Wokingham, Berks., was elected a Governor, and 34 duly nominated candidates were admitted into the Society as Members.

The PRESIDENT said he was sure the Council would all regret the sad bereavement which had befallen the Royal Family in the death of Prince Maurice of Battenburg, and would wish to record their deep sympathy with His Majesty the King and the Royal Family at the loss of a member of their Royal house, who died so gallantly serving his country.

The PRESIDENT announced that during the press he received a letter from the Board of Agriculture explaining that an Organising Committee was being formed with the object of facilitating the purchase by the military authorities of farm produce direct from the farmers, and asking that the Secretary (Mr. McKew) might be allowed to serve on that Committee. As the matter was one of urgency, he had given the necessary permission for this, and also for the address of the Society to be used by the Organising Committee. They also asked for his Lordship's co-operation in the selection of the members

of the County Committees. He thought the scheme was one who could commend itself to the Council, and hoped that his action would meet with their approval.

Mr. ADEANE regretted to announce to the Council that the loss of the Shrewsbury Show amounted to something like 3,500*l*. He was quite sure the Society would bear this loss cheerfully, because undoubtedly the Shrewsbury Show was one of the finest ever held by the Society.

There was one other matter upon which he would like to touch. He wished to forestall any discussion on the recommendation which would be put forward later by the Committee of Selection, but he wished to make clear the position of the Finance Committee regarding the question of holding the Show at Nottingham next year. Unfortunately he had not been able to be present at the special meeting of the Council held on September 1, at which a resolution came up from the Finance Committee, but which was omitted, because the question had been postponed for further consideration that day. He would like to read the resolution, which was as follows:—

"The Committee having considered questions raised with reference to the 1915 and 1916 Shows, decided to recommend that arrangements for holding the Nottingham Show be proceeded with."

The Finance Committee had discussed that question again yesterday, and they adhered entirely to the resolution he had just read. They knew that in undertaking that Show they were undertaking a loss—a loss to the Society, but a gain to agriculture. Therefore he did not think they should consider the loss at all. It was everything for them that they should maintain the great industry of agriculture at the highest pitch at this time, and, in the case of a loss, they were fortunate in having a considerable reserve upon which to draw.

The Report of the Stock Prizes Committee, which was received and adopted, included a recommendation that in future no entries be received from a certain Member, and that the necessary steps be taken to dismiss him from the membership of the Society.

The reasons for the Committee's action were explained to the Council by Mr. ERNEST MATHEWS, who further stated that, in accordance with By-law 16, a formal request signed by ten Governors and Members had been made to the Council that the Member in question should be dismissed from the Society. As the Council would observe, this document was displayed on the wall of their Council Room that day, and at the next meeting a resolution would be moved asking the Council to give effect to the request.

The PRESIDENT drew attention to a letter from the Vegetable Products Committee, as the matter was naturally one that commended itself to them at the present time. He thought, as the Report of the Dairy Committee stated, that the question was more for individuals than for the Society as a whole, and he would like to suggest to the Members present that they should kindly bring to the notice of their friends and neighbours the great need there was for sending fruit and vegetables to the troops and to the Fleet, especially to the Fleet. The Secretary to the Committee was Mr. E. Jerome Dyer, Alderman's House, Alderman's Walk, London, E.C., from whom all particulars could be obtained. He believed that some, at all events, of the railway companies had agreed to carry fruit and vegetables on behalf of this Committee free of charge, if sent to a recognised depot.

A letter was read from Mr. DUNBAR KELLY, the Member of Council for Surrey, stating that he had been commissioned to the Army Service Corps, and had volunteered for Imperial Service, and inquiring whether, under these circumstances, the Council considered that he should resign his seat on that body in favour of some Member who would be able to attend. If such was the wish of the Council he would feel compelled to resign, although with very great regret. The meeting unanimously decided that Mr. Dunbar Kelly should be asked to retain his seat on the Council.

Monthly Council, December 9, 1914.

XXV

The following communication from the Right Hon. Walter Runciman, M.P., was read to the Council:—

August 16, 1914.
Dear Sir,—On leaving the Board of Agriculture, over which I have had the honour of presiding for the past three years, I wish to express to the Council of the Royal Agricultural Society my thanks for the ready and invaluable help given to me while I was President of the Board. The co-operation and support given so ungrudgingly by your Council compel me to express the sense of obligation under which I lie to them.—Believe me to be, Yours faithfully,

THE SECRETARY,
Royal Agricultural Society
of England.

(Signed) WALTER RUNCIMAN.

The Report of the Council to the Annual General Meeting of Governors and Members, to be held at the Royal Agricultural Hall, Islington, at 2.30 p.m. on Wednesday, December 9, was prepared and ordered to be issued.

Other business having been transacted, the Council adjourned until Wednesday, December 9, 1914.

WEDNESDAY, DECEMBER 9, 1914.

At a Monthly Council, held at 16 Bedford Square, London, W.C., the Earl of Northbrook (Trustee) in the Chair:

Present:—Trustees.—H.R.H. Prince Christian, K.G., Sir J. B. Bowen-Jones, Bart., the Earl of Coventry, the Duke of Devonshire, G.C.V.O., Lord Middleton, Lord Moreton, Sir John H. Thorold, Bart.

Vice-Presidents.—Mr. C. Adeane, Mr. Percy Cratchley, the Right Hon. Sir A. E. Fellowes, K.C.V.O., Mr. R. M. Greaves, Sir Gilbert Greenall, Bart., C.V.O., the Hon. Cecil T. Parker.

Other Members of the Council.—Mr. D. T. Alexander, Capt. Clive Bohren, Mr. E. W. Betts, Mr. Davis Brown, Mr. T. A. Buttar, Mr. W. W. Chapman, the Hon. J. E. Cross, Mr. J. T. C. Eadie, Mr. John Evens, Mr. J. Falconer, Sir Howard Frank, Lord Harlech, Mr. Joseph Harris, Mr. J. H. Hine, Mr. A. Hiscock, Mr. R. W. Hobbs, Mr. J. Howard Howard, Mr. J. L. Luddington, Mr. Ernest Mathews, Mr. W. A. May, Mr. G. Norris Midwood, Mr. T. H. Miller, Mr. John Myatt, Mr. W. Necton, Mr. C. M. S. Pilkington, Lord Ranksborough, Mr. F. Reynard, Mr. John Rowell, Capt. Percy W. Seward, Mr. Fred Smith, Lord Strachie, Mr. C. W. Tindall, Mr. A. P. Turner, and Mr. L. O. Wrigley.

President-Elect.—The Duke of Portland, K.G.

The following members of the Nottingham Local Committee were also present:—The Mayor of Nottingham (Mr. Alderman Gregg), Mr. A. W. Hickling, Alderman F. R. Radford, J.P., Councillor J. G. Small, Mr. T. Warner Turner, and Messrs. W. J. Board (Town Clerk) and W. H. Bradwell (Hon. Local Secretaries).

The Earl of Northbrook announced with regret that their President, Lord Powis, was unwell, and unable to be present that morning. It therefore fell to his duty, as ex-President, to occupy the chair.

The minutes of the last monthly meeting of the Council, held on Wednesday, November 4, 1914, were taken as read and confirmed.

Twenty-seven duly nominated candidates were admitted into the Society as Members under By-law 2.

The CHAIRMAN said that since the last meeting of the Council they had lost a very old and valued Member by the death of Sir Walter Gilbey. Sir Walter's connection with the Society had existed for 45 years. He had been elected a Member of Council in 1881, Vice-President in 1889, a Trustee in 1895, and had been President of the Society in 1896, in which year the Show was held at Leicester. He would be remembered for the active interest he took for so many years in all matters connected with the Show, and also for the great services he rendered to agriculture, particularly stock-breeding. It would be the desire of the Council to express their regret at the loss of an old and valued colleague and their sympathy with his family in their bereavement.

The Report of the Finance Committee was received and adopted, together with the audited accounts of the Shrewsbury Show. Mr. ADEANE, in pre-

presenting this report, said that, at the last meeting he estimated that the loss on the Show would be 3,500*l.*, and he now wished to inform the Council that the actual loss was 3,616*l.* They had never, he supposed, held a more successful Show than the one at Shrewsbury, and, unhappily in a way, the success of the Show contributed to the loss. There was a very large increase in the entries of stock, which required special arrangements and extra shedding, and that led to a considerable increase of expenditure. If they compared Shrewsbury with Bristol they had an increased expenditure on the Showyard of 1,000*l.*, an increase under the heading of advertisements of 200*l.*, and a very large increase in the prize list of 800*l.*, entirely owing to the excellent entries of stock, which necessitated extra fourth and fifth prizes being awarded. The main contribution to the loss at Shrewsbury was the falling off in the attendance, and the total amount received at the "gate" and horse-ring at Shrewsbury was 8,415*l.*, compared with 13,617*l.* at Bristol, a decrease of 5,172*l.* As the expenditure on the Show this year showed an increase, it would have required a good "gate" to show a profit, and, unfortunately, the gate at Shrewsbury was not up to the strain. He thought they would be relieved to hear that they would be able to meet the loss without touching any of their invested funds. It was owing to the very hospitable and generous welcome they received from the town of Shrewsbury and the county, that they had been able to take their exhibition into a rural country district, which it had always been their ambition to do, quite apart from whether they made a profit on the Show or not. That, they were all agreed, was their duty. In connection with that warm welcome, he would like to mention the name of the Mayor of Shrewsbury, Major Wingfield, the Town Clerk, Mr. Pridcaux, and the Honorary Secretaries, Mr. Clarke and their colleague Mr. Mansell. Also Sir Bowen Bowen-Jones, who acted as Chairman of the Local Committee. The Council were very glad if they could make a profit on the Show, and as long as those profits were put to reserve and used to strengthen the position of the Society, they were very welcome. But profits were not everything. It was their duty to go to every part of the country. To meet the deficit of 3,616*l.*, they had the 2,500*l.* allocated every year against loss from the Ordinary Account to the Show Account. He estimated that the balance for the year on the Ordinary Account would be 500*l.*, and they had a sum of 645*l.* of the Reserve Account not yet invested, upon which they would draw as much as they required.

The Report of the General Nottingham Committee was received and adopted. The Earl of NORTHBROOK, in presenting this report, said he was sure the Council would wish to express their welcome to the Mayor of Nottingham, the Sheriff of Nottingham, the Town Clerk of Nottingham, and to other gentlemen from the city and county who had been so good as to come there that morning to the General Nottingham Committee. They also welcomed their President-elect, the Duke of Portland.

The Mayor of NOTTINGHAM said he had nothing to add to what had been stated in the Report, except to express his agreement with the decision of the Committee.

The Duke of PORTLAND thanked the meeting for the honour they had done him in nominating him for election as President of the Society. He could only say that he most deeply and sincerely appreciated that honour. As it had been decided to hold the Show at Nottingham, he could only repeat the assurance he had given to the Committee that he personally would do all he could to make the Show a success, and there was no possible doubt that the people interested in agriculture in the county of Nottingham would also do their best to make it a success.

SIR BOWEN BOWEN-JONES said the Report of the Chemical and Woburn Committee read by the Secretary was self-explanatory, but of course the details of the proposals with regard to the new scheme for Woburn could not possibly be mastered by anyone in the room on hearing them read. If, as he hoped, the report was adopted, the scheme which he laid upon the table would be

circulated, not only to the Members of the Special Committee in the first instance, but to every Member of Council before it was finally considered, with a view to its ratification or rejection. He therefore would content himself with moving:—

"That the scheme prepared by the Chemical and Woburn Committee for the future work of the Woburn Experimental Farm be received by the Council and referred by them to the Special Committee for their consideration and report to the Council at their meeting to be held on January 27, 1915, at which meeting the question would be finally settled by the Council."

The motion was unanimously adopted.

Mr. ADEANE enquired whether the scientific Members of the Special Committee who were not Members of the Council would be allowed to vote; and, on the Duke of Devonshire stating that they should be asked to be present to advise the meeting but not vote, this decision was confirmed by the Council.

The Report of the Veterinary Committee having been read, Lord STRACHIE moved that the part of the Report, which he said was in the form of a "vote of censure" upon the Board of Agriculture in connection with the suspension of the Sheep-dipping Orders, should be expunged. He did not intervene at the meeting of the Veterinary Committee on the previous day when this matter was discussed, because he was not then certain what was the reason of this action of the Board, but he thought then that the Board of Agriculture would have a good explanation of their action. He had since ascertained that this impression was quite correct. These Sheep-dipping Orders had been simply suspended at the request of the Home Office or the Police, in view of the exceptional pressure of work upon the Police at this particular time. Surely the Council at such a time should be anxious to assist the Police and not blame the Board of Agriculture for assenting to their request.

Lord NORTHBROOK (Chairman of the Veterinary Committee) very much deprecated the description that the paragraph in question was a vote of censure on the Board of Agriculture, as it was certainly not the Committee's intention to pass such a vote.

Lord STRACHIE—interrening—said that any old Parliamentary hand knew that to express regret in a resolution was equivalent to a vote of censure.

Lord NORTHBROOK, continuing, said it was so long since he was in the House of Commons that he was afraid he was not up in Parliamentary procedure. In any case, it was not their desire to censure the Board of Agriculture.

He thought it was unfortunate that the Orders had been suspended, because their working had been most satisfactory, reducing sheep scab to a lower point than it had ever been before. From time to time strong representations had been made to the Veterinary Committee to urge the Board of Agriculture to take the opportunity to stamp out the disease, and by drastic action remove sheep scab altogether from the country. It was extremely undesirable, if it was possible to keep the Orders in force, that they should be put in abeyance. They quite realised that the action of the Board in suspending the Tuberculosis Order and the Parasitic Mange Order was necessary, owing to the veterinary inspectors in the various counties now being employed in work for the War Office in buying and inspecting horses. All that was necessary to carry out the Sheep-dipping Orders was to give notice to the inspector, usually the police constable in the neighbourhood, who was given the opportunity of being present when the sheep were dipped. He could only say from experience in his own county of Hampshire, a large sheep county, that there was a strong feeling among farmers that it was a misfortune that the Orders had been suspended. They had suffered severely from sheep scab in the past, and farmers hoped that the Board would take every precaution to prevent it. He did not believe they would have the slightest difficulty in working the Orders if enforced. He did not know whether it had been done, and he had no knowledge of it having been done, but he would suggest that, if it was thought desirable, the Board might communicate with all Local Authorities and ascertain whether it was not possible in the present state of affairs to put the Orders into operation again.

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Lord STRACHIE'S motion, not being seconded, fell to the ground. The Report of the Veterinary Committee was adopted.

In presenting the Report of the Committee of Selection—which was received and adopted—Sir JOHN THOROLD said he was sure the Council would be glad to learn of the recommendation that Sir Gilbert Greenall should be elected a Trustee of the Society for the great services he had rendered to it, and also that Lord Powis should be elected a Vice-President. (Hear, hear.)

Mr. ERNEST MATHEWS, in moving that a Member be dismissed, said that under By-law 16 "any ten Governors or Members of the Society may send in writing to the Council a request, signed by them, that any Governor or Member shall be dismissed from the Society. Such request shall be placed in a conspicuous part of the Council room, and a copy thereof, signed by the Secretary, shall be transmitted by post to the Governor or Member proposed to be dismissed. At the first monthly meeting of the Council, at which twelve Members at least shall be present, and which shall take place not less than one month after such request shall have been placed in the Council room, the Council shall take the matter into their consideration. If the Council shall unanimously agree to the dismissal of such Governor or Member, he shall thereupon and thenceforth cease to be a Governor or Member of the Society."

All those formalities had been complied with. Prizes had been awarded to the Member in question, who had made false statements on the entry forms sent in by him. The matter had been very carefully gone into, particularly by the Breed Society of which the defaulter had been a Member. They had not only satisfied themselves, but a letter had been received from the wife of the defaulter to say that the entries were wrong, and therefore there was nothing further to do except to move that the terms of By-law 16 be complied with, and that the Member in question be dismissed from the Society.

Mr. REYNARD, in seconding the resolution, could only say that the case was one of the grossest fraud, and he was sure the Council would not wish to allow any man guilty of such fraud to remain a Member of their honourable Society.

Mr. TINDALL, as representing the Breed Society in question, having explained the action taken by them, the resolution was put to the meeting and unanimously adopted.

The following Standing Committees were appointed for 1915:—Finance, Journal and Education, Chemical and Woburn, Botanical and Zoological, Veterinary, Stock Prizes, Implement, Showyard Works, Selection, Dairy and Produce, and Special. The present Members of the various Standing Committees were (with some exceptions) reappointed to those Committees. The Hon. John Boscawen was added to the Journal and Education, Botanical and Zoological, and Showyard Works Committees, Mr. W. W. Chapman to the Veterinary Committee, the Earl of Powis, Lord Middleton and Mr. Harrison to the Committee of Selection.

Other business having been transacted, the Council adjourned over the Christmas recess until Wednesday, January 27, 1915.

Proceedings at the Annual General Meeting of Governors and Members,

HELD AT THE ROYAL AGRICULTURAL HALL, ISLINGTON.

WEDNESDAY, DECEMBER 9, 1914.

THE EARL OF NORTHBROOK (TRUSTEE) IN THE CHAIR.

Present:—Trustees.—Sir J. B. Bowen-Jones, Bart., Lord Middleton, Sir John H. Thorold, Bart.

Vice-Presidents.—Mr. C. R. W. Adeane, Mr. Percy Crutchley, the Right Hon. Sir Ailwyn Fellowes, K.C.V.O., Sir Gilbert Greenall, Bart., C.V.O.

Annual General Meeting, December 9, 1914. xxxix

Ordinary Members of the Council.—Mr. T. L. Aveling, Mr. E. W. Betts, Mr. Davis Brown, Mr. T. A. Buttar, the Hon. John E. Cross, Mr. John Evans, Mr. James Falconer, Mr. J. W. Glover, Mr. William Harrison, Mr. A. Hiscock, Mr. J. Howard Howard, Mr. J. L. Luddington, Mr. Ernest Mathews, Mr. W. A. May, Mr. G. Norris Midwood, Mr. T. H. Miller, Mr. John Myatt, Mr. William Nocton, Mr. C. M. S. Pilkington, Mr. Frederick Reynard, Mr. John Rowell, Lord Strachle, Mr. C. W. Tindall, Mr. Arthur P. Turner, Mr. Louis C. Wrigley.

Governors.—The Duke of Portland, K.G., Mr. Beville Stanier, M.P., Mr. H. H. Vivian.

Honorary Members.—Professor Sir John McFadyen, Mr. Thomas F. Plowman.

Members.—Sir Walter Gibbey, Bart., Messrs. W. Adams, W. Banbridge, H. F. Beale, W. Worby Beaumont, J. L. Beck, K. W. Brewster, I. Brigg, W. S. Cleverley, Major P. G. Craigie, C.B., Messrs. J. F. Crowe, J. Crowe, Walter Dunn, Rupert Ellis, T. Ewart, G. Eyre, jun., Lt.-Col. G. J. Fergusson-Buchanan, Messrs. W. Fitzherbert-Brockholes, W. Gavin, W. Gilson, E. Grasset, J. E. Grove, W. Hedges, H. G. Hiorns, W. Langridge, J. Motters, J. H. Mills, J. T. Mills, C. Morris, J. M. Moulbray, J. Nunnerley, C. S. Orwin, H. W. Palmer, D. F. Pennant, J. P. Pentelow, A. Phillips, H. A. Poels, F. Handlyn-Price, H. Baby, H. Riley, J. P. Roberts, A. Robinson, St. John B. Roscoe, C. B. Russell, F. G. Samson, George Scoby, S. R. Sherwood, F. W. Stone, D. Swaffer, J. Herbert Taylor, H. W. Thomas, W. Meyler Thomas, R. Tory, E. Trimen, R. Vaisey, John Warne, Thomas Warne, F. N. Webb, Trevor Williams, Leslie S. Wood, Professor J. Wrightson, &c., &c.

Chairman's Opening Remarks.

In opening the proceedings, Lord NORTHBROOK said that Sir John Thorold, the Chairman of the Committee of Selection, had received the following letter from Lord Powis, the President:—

"I have not been well lately, and I regret that I am not able to be present at the Council and General Meetings this week, at which I wished to thank the Council and Members of the Royal Agricultural Society for the honour that they did me in electing me President, and for the generous support which I have received from them. I shall be very grateful if you will kindly convey my thanks to the Council and Members of the Society. In bidding farewell to the Council, I wish to thank every Member for the consideration, help and courtesy which I have received, and which has made this year one which I shall always look back to with pleasure."

He was sure that all the Members of the Society would very much regret the illness that prevented their President from being with them on that occasion, and, in his absence, it fell to the lot of the ex-President to take the Chair.

He presumed that Members of the Society had never assembled in general meeting in such serious times as prevailed at the present moment. A great war had been thrust upon them, involving sacrifices which had been bravely borne by all, and not the least by those directly connected with the agricultural interest in this country. (Hear, hear.)

In view of the present situation, the Council had had under their serious consideration the question as to how the Society's work would be affected by the war, and had decided that it was their duty to proceed with the Nottingham Show both in the interests of agriculture and the nation generally. (Applause.)

He felt confident that this decision and also the contribution of 1,000*l.* from the Society's funds to the Prince of Wales's National Relief Fund, would meet with the approval of the Members of the Society.

In deciding to proceed with the Show in 1915, the Council fully recognised that, owing to the numerous special calls on the public, the Local Committee could not, on this occasion, provide the usual local fund, but in the extraordinary situation they felt that the Society should be prepared to proceed with the Show, a contribution of 2,000*l.* having been promised by the Corporation of Nottingham. (Applause.)

The Council recognised that they would undoubtedly incur a considerable loss, but, supported by the recommendation of the Finance Committee, they were prepared to face this in the interests of the Society and of agriculture generally.

It was fortunate that the Society had created a Reserve Fund, which enabled them in such a time of stress to proceed with their ordinary operations.

An exceptional and sad feature in the Report was the record of Members who have fallen on the field of battle while gallantly fighting for their country.

The first item on the agenda was the presentation of the balance-sheet, and, in accordance with custom, the Council formally submitted the balance-sheet for the year 1913, which, with the statement of receipts and expenditure, were published in the last volume of the Journal.

From the Show Accounts, of which copies were in the hands of all present, it would be observed that at Shrewsbury this year the expenditure was 3,616*l.* in excess of the receipts.

In reviewing the Report of the Council, it would be noticed that the deaths of many supporters were recorded, and he might especially refer to the loss of one of the oldest Members of the Society, and an old friend of his own, Mr. Hugh Raynbird, elected in 1847, who, until a very short time before his death, took a lively interest in the Society.

Since the preparation of the Report the Society had lost a very old and esteemed Member of the Council, Sir Walter Gilbey. At such a meeting as this it was not necessary for him to refer to the many ways in which Sir Walter had given such practical evidence of his interest in agricultural matters, and especially in the improvement of horse-breeding in this country. His activities on the Council in the work of the Society were still remembered by those of his colleagues who worked with him in those times. For some few years Sir Walter had been in failing health, and had not been able to attend the meetings of the Council.

His Lordship also regretted to announce that since the publication of the Report information had reached the Society of the death of Dr. William Saunders, of the Department of Agriculture, Ottawa, who had been elected an Honorary Member of the Society in 1908.

It was with much regret that he referred to the death of Mr. H. M. Freear, who, for the past fourteen years, had been in charge of the Laboratory and Pot-Culture Station at the Woburn Experimental Farm. All who knew Mr. Freear would be aware of the deep interest he took in his work, and of the invaluable assistance he had always given to Members and others visiting the Station.

Mr. Freear's death came very unexpectedly, and his Lordship was sure that Members all sympathised very much with the widow and family in their sad bereavement.

Interesting paragraphs in the Report were those relating to the Shrewsbury Show. He thought all who were present at that Show would agree that it produced one of the finest exhibitions of live stock and implements that had ever been witnessed in this or any other country—(hear, hear)—and while they regretted that more visitors did not take advantage of the excellent Show provided, they congratulated the Shrewsbury Local Executive on the splendid site and the general excellence of the exhibition.

The visit of His Majesty the King to the Show had been most enthusiastically welcomed by the people of Shropshire, who crowded into the town of Shrewsbury to give His Majesty a truly hearty and loyal greeting. His Majesty spent the greater part of the time he was at the Show in inspecting the exhibits, and expressed himself as highly pleased with his visit.

To the Mayor of Shrewsbury (Major Wingfield) the thanks of the Society were due for the strenuous work he undertook in connection with the Society's visit, and also for the hospitality extended to them. The Society were also

indebted to the members of the Corporation, and to their good friend, Sir Gowen Bowen-Jones, who had acted as Chairman of the Local Committee, and to all those gentlemen who acted with him; and to the Honorary Secretaries, Mr. H. C. Clarke and Mr. Alfred Mansell. In referring to the Local Secretaries, he must make special mention of Mr. Alfred Mansell, whose assistance and advice had been of the greatest service in carrying out the details relative to the Show. Their thanks were also due to Mr. Edward Chelver, the hard-working Local Secretary, and to Mr. Thomas Whittfield, the Secretary of the Shropshire and West Midland Agricultural Society.

It was needless to say that all arrangements in connection with the Show had been carried out in an admirable manner by Sir Gilbert Greenall, to whom their hearty thanks were due for his invaluable services to the Society as Honorary Director during the past nine years (applause)—and the Secretary had again performed with zeal and ability his many responsible duties with the assistance of the staff.

The Report contained the record of other interesting work, including the proposal to hold a show of grain and seeds at Nottingham last October, but which show had to be abandoned owing to the exceptional conditions in the country arising out of the war; and for the same reason the trials of agricultural tractors and ploughs to be used with tractors had had to be postponed.

The Society were greatly indebted to the Breed Societies for their kind co-operation. They had again come forward with liberal contributions to the Prize Fund, which would enable the Society to issue a very full classification and prize list in connection with the Nottingham Show.

The membership showed an increase in the year of 136. This was so far satisfactory, but the membership still fell far short of what that of a National Society should be. He would again appeal to all Members to bring the claims of the Society for wider support to the notice of their friends and neighbours, and endeavour substantially to increase the number of their Members during the coming year.

They were again indebted to the Royal Agricultural Hall Company for their kindness in granting them the use of that room for the meeting, and he would be pleased to convey the Society's thanks to the directors for their kindness.

Adoption of Report.

The Report had been printed and circulated to each Member, and the meeting would probably be willing that it should be taken as read. He would therefore call on Mr. Beville Stanier to move its adoption.

Mr. BEVILLE STANIER said he would like to be allowed to move the adoption of the Report, which was one showing the multitude of good work done by the Society, embracing, he thought, every point in agriculture that could be thought of. Being connected with Shropshire and Shrewsbury, it was with deep regret that he heard of the loss sustained by the Society on coming into their midst. He was sure, however, that, although there had been a loss to the Society, there had been a gain to the county and the district. There was not a single agriculturist who did not acknowledge that he had learned something in that part of the country, and they had gained, although the Society had lost. He would like to touch for one moment upon the happy coincidence that they had been able to welcome at the Show the South African farmers and also the Siberian farmers, who were now their country's allies. (Hear, hear.) If they had known then what they knew now, these farmers would have been given, if possible, an even greater welcome. There was one point he would like to touch upon, and that was the increase in the number of samples submitted to the Society for analysis. He did not think farmers sufficiently realised the importance of this. Recently he had a sample of wheat sent to him for seed from best quality, but which contained two per cent. of dock seed. Worked out at 2½ bushels to the acre, at which it would be

sown, the dock seeds would have amounted to over 9,000 to the acre, and the significance of that small percentage of dock seed were realised he would have sent that a much greater number of samples would be sent to the Society for analysis. He only tendered those few remarks to show the importance of the Report that was put before them.

Mr. SHERWOOD formally seconded the motion.

Mr. J. METTERS regretted that the Society had not been able to see its way to carry out the proposed trials of motor ploughs and tractors. Farmers were very disappointed with this decision. They had been looking forward to seeing the ploughs, and to getting societies formed to start them. If ever there had been a time when motor tractors and ploughs were needed, it was the present, owing to the loss of horses and men to the country. He did not think the trials need be a great expense.

Mr. RUSSELL supported Mr. Metters, and said that horses were all being taken for the war, and it was a hardship to those men with light horses. It was the time of all others for the Royal Agricultural Society to encourage the makers to produce the best machine they could, and consult and examine the produce of the different makers, so as to give farmers a line as to what they should go for. It was absolutely essential that they should have motor-traction, as otherwise the land could not be ploughed, and if that were not done, the plough land would be laid down to grass, and there would be less corn, when they wanted more and more corn. It was their duty to encourage motor traction in every possible way.

Mr. WILLIAM HARRISON said the reason for the adjournment of the motor-tractor trials was not one from the point of view of finance alone, but that the makers of motor-tractors were at the present time so much engaged in making accoutrements and motor-cars for the Government, that they would not be able to give their specific attention to machines for the trials. For these reasons the Committee had thought it advisable to postpone the trials for twelve months.

A MEMBER suggested that in these times they ought to save money, and he noticed there was an item in the account for the Surveyor for 300l. This seemed to him to be a lot of money just to survey the show-ground.

The CHAIRMAN said he did not think the speaker realised the amount of work done by the Surveyor; in fact, their expenditure on that head was a reduction on what it was formerly.

The Report was then received and adopted.

Election of President.

Mr. FITZHERBERT-BROCKHOLES said that it was with very great pleasure indeed that he moved that the Duke of Portland be elected President of the Society, to hold office until the next ensuing annual general meeting. In doing so, it was unnecessary for him to enlarge on his Grace's qualifications for the post, and the reasons for which they hoped he would accept it. As they all knew, he was a very large landowner, but that in itself would only be half a qualification. When a large landowner like the Duke of Portland also showed an active and practical interest in agriculture, there were the two necessary qualifications. They knew the excellence of his work as President of the Horse-breeding Commission, and they knew of the good work he did in other ways, and therefore it was with great pleasure and the feeling that it would be unanimously accepted, that he moved the resolution.

Major CRAIGIE said it was with very great pleasure that he seconded the nomination. He was quite sure that the recommendation the Council had made was one that would be heartily received by the Society. They would rejoice to know that the long roll of honour which they had in their Presidents would be continued by the election of one with so prominent and so eminent a record as that possessed by the Duke of Portland. All those who knew anything of his work would be satisfied that in these arduous and strenuous

time, when it was incumbent upon them to uphold the Society, they could have entrusted the work of the Presidency to no more active and able hands than those of the Duke of Portland.

The resolution on being put to the meeting was carried with acclamation.

The Duke of PORTLAND, in responding, said he was deeply sensible of the value of the honour conferred upon him by electing him as their President. He thanked them all very sincerely, and he would particularly acknowledge the kindness and generosity of the words that had fallen from the lips of the mover and seconder of the proposition.

When he reflected upon the names of some of his distinguished predecessors, and the eminent services which they had rendered in the promotion of agricultural interests, he confessed to a feeling of pride that their choice for the ensuing year should have fallen upon him, for he considered the Presidency of the Royal Agricultural Society was one of the proudest positions that an Englishman connected with the land could hold.

At the same time he did not ascribe the honour to any individual merit which they might have discerned in him. Rather would he think that they had chosen him because they were good enough to consider him as a representative of Nottinghamshire, near the county town of which it was proposed that the next Show should be held.

He could assure them that when Nottinghamshire people undertook any duty of a public nature, they liked to discharge it better than, or at the very least as well as, it had ever before been discharged.

They remembered that on the occasion of the last visit of the Royal Agricultural Society to Nottingham, in 1888, a record for one day's attendance at the Show had been established, and they would, he was sure, have liked that the occasion of the Society's second visit should have been marked by the establishment of another record.

But at a time when their country was involved in a life and death struggle—a life and death struggle possibly greater than she had ever encountered—such a result could not be hoped for, and they would therefore have preferred that the visit should have been postponed until a time when the Continental struggle should have been brought by ourselves and our Allies to a triumphant conclusion.

They were perfectly well aware that a period of war was ill-suited to the improvement and development of so essentially peaceful a pursuit as agriculture, and they had already been apprised of a resolution which had been passed at a representative meeting held at Nottingham on November 28.

That resolution read as follows:—"That this meeting, having given the question of the holding of the 1915 Show at Nottingham careful consideration, very respectfully suggests to the Council of the Royal Agricultural Society that it is inadvisable to hold the Show in the present crisis, but assures the Society that in the event of their deciding to hold it, the city and county will do everything they can to make it a success."

As far as he was able to judge, those words exactly indicated the attitude of a great number of the inhabitants of the county and city of Nottingham, but still, if it should seem good to the Council of this Society that the Show should be held as usual, then he was certain that Nottinghamshire people would be ready to waive their personal views and feelings as to the expediency of holding it, and they would be ready to address themselves energetically to the task of making it a success.

One of his predecessors, when reviewing his term of office, had said that he had never had one moment of friction with the Council, and that he had nothing to look back upon except with pleasure.

At the end of his term of office, a year hence, he hoped to be able to make the same declaration, and he could assure those present that he would undertake the duties of the Presidency in a spirit that would conduce to that end—a spirit of good will, a spirit of hope, and a spirit of energy, and one of

confident reliance upon the Members of the Council and the Members of the Society generally for their earnest and loyal co-operation. In conclusion he again thanked them sincerely.

Election of Auditors.

Mr. J. HERBERT TAYLOR said he had great pleasure in moving:—

"That the best thanks of the Society be tendered to Messrs. Jonas M. Webb, Hubert J. Greenwood, and Newell P. Squirey for their services as Auditors, and that they be re-elected for the ensuing year."

He hoped that when the Members next assembled they would do so under more favourable auspices, and he hoped the auditors next year would have pleasant duties to perform.

Mr. RUSSELL formally seconded the resolution, which was adopted.

Election of Trustees.

The CHAIRMAN stated that the following twelve Trustees had been nominated by the Council in accordance with the by-laws, and on a show of hands they were duly elected:—

H.R.H. Prince Christian, K.G., Cumberland Lodge, Windsor.
Bedford, Duke of, K.G., Woburn Abbey, Bedfordshire.
Bowen-Jones, Sir J. B., Bart., Council House Court, Shrewsbury.
Cornwallis, F. S. W., Linton Park, Maidstone, Kent.
Coventry, Earl of, Groome Court, Severn Stoke, Worcestershire.
Devonshire, Duke of, G.C.V.O., Chatsworth, Chesterfield.
Greenall, Sir Gilbert, Bart., C.V.O., Walton Hall, Warrington.
Jersey, Earl of, G.C.B., G.C.M.G., Middleton Park, Bicester.
Middleton, Lord, Birdall House, Malton, Yorks.
Moreton, Lord, Sarsden House, Chipping Norton, Oxon.
Northbrook, Earl of, Stratton, Micheldever, Hampshire.
Thorold, Sir John H., Bart., Old Hall, Syston, Grantham.

Election of Vice-Presidents.

The Vice-Presidents were elected in a similar manner, their names being as follows:—

Adeane, C. R. W., Babraham Hall, Cambridge.
Crutchley, Percy, Sunninghill Lodge, Ascot, Berkshire.
Derby, Earl of, G.C.V.O., C.B., Knowsley, Prescot, Lancashire.
Dugdale, J. Marshall, Llwyn, Llandylun, S.O., Mont.
Fellows, Right Hon. Sir Ailwyn E., K.C.V.O., Honingham, Norwich.
Feversham, Earl of, Duncombe Park, Helmsley, Yorkshire.
Greaves, R. M., Wern, Portmadoc, North Wales.
Northumberland, Duke of, K.G., Alnwick, Northumberland.
Parker, Hon. Cecil T., The Grove, Crowtham, Wiltshire.
Powis, Earl of, Powis Castle, Welshpool, Mont.
Rothschild, Lord, Tring Park, Hertfordshire.
Yarborough, Earl of, Brocklesby Park, Lincolnshire.

Election to the Council.

The CHAIRMAN then announced, in accordance with By-law 87, the names of the following Ordinary Members of Council who had been elected to represent the several Divisions of the Society included in Group "A," in order that the meeting might "take cognizance of their election":—

Northumberland: Bea, G. G., Middleton, Wooler.
Yorks (North Riding): Behrens, Captain Clive, Swinton Grange, Malton.
Lancashire (and Isle of Man): Harrison, William, Hall House, Leigh, and Miller, T. H., Singleton Park, Poulton-le-Fylde.
Cheshire: Cross, Hon. John E., High Leigh, Knutsford, and Midwood, G. Norris, The Grange, North Rolie, Congleton.
Derby: Eadie, J. T. C., The Rock, Newton Solney, Burton-on-Trent.
Northampton: Knightley, Sir C. V., Bart., Fawsley, Daventry.
Norfolk: Brown, Davis, Marham Hall, Downham Market, Hastings, Lord.
Malton Constable Park, and Overman, Henry, Wassenham, Swaffham.
Bedford: Howard, John Howard, Clapham Park, near Bedford.
Hertford: Carr, Richardson, Home Farm, Tring Park.
Middlesex: Perkin, A. W., Greenford Green, Harrow.
Stafford: Myatt, John, Lynn House, Lichfield, and Patterson, R. G., Acton Hill, Stafford.
Worcester: Wheeler, E. Vincent V., Newnham Court, Tenbury.

Annual General Meeting, December 9, 1914. xlv

Monmouth: Wrigley, Louis C. Trefleck Grange, Chertsw.
Cornwall: The Hon. John R. de C. Boscawen, Trejye, Perranwell.
Dorset: Hiscock, Arthur, Manor Farm, Motcombe.
Hampshire (and Channel Islands): Falconer, James, Northbrook Farm, Michel-
dever Station, and Seward, Capt. Percy W., Weston, Petersfield.
Scotland: Buttar, Thomas A., Corston, Coupar Angus.

Suggestions of Members.

The CHAIRMAN, having asked if any Governor or Member had any remarks to make or suggestions to offer for the Council's consideration,

Mr. W. HEDGES wished to take that most opportune occasion to ask the Society to recommend to the Horse Breeding Committee and the Board of Agriculture to take precautions now that many of their mares had gone out of the country that approved horses were sent round having earned a King's Premium. The present conditions were very unsatisfactory to the farmer trying to breed horses if he only had a very low percentage of foals. Some rule should be made that a horse should be a *bona fide* stock getter and prove himself capable of getting a certain percentage of foals before getting a King's Premium.

Thanks to Retiring President.

Mr. F. HAMLYN PRICE begged to move that the Society pass a vote of thanks to Lord Powis for his services as President during the past year. The speaker was one of those who always attended the Royal Show, and of course he had been at Shrewsbury. He was an ardent admirer of the perennial services of Sir Gilbert Greenall, Mr. Mallow and their colleagues the permanent officials, but he recognised that there must be an official who only held office for one year. At Shrewsbury it was in the air that there had never been a President more sustained in his duties and who took more pains to attend meetings, and who took more interest in the job, than Lord Powis. This, he was sure, would move them to agree to the vote of thanks which it was his privilege to propose, and in doing so he thought they would like to voice once more their regret at the ill-health of Lord Powis.

Professor JOHN WRIGHTSON thought it was unnecessary for him to repeat what had been said by the mover of the resolution, but he endorsed every word he had said. There was no county in which he, the speaker, had so many friends as in Shropshire, many of whom were no doubt well acquainted with his lordship. He knew from the talk of those people of the popularity of Lord Powis, and also of the energy and zeal with which he had successfully carried out the duties of his office. He had much pleasure in seconding the motion.

The vote of thanks to Lord Powis was enthusiastically carried.

Thanks to Chairman.

Col. FERGUSSON-BUCHANAN had the greatest of pleasure to ask the meeting to accord a most cordial vote of thanks to Lord Northbrook for his duties in the chair that day.

Sir WALTER GILBEY had very sincere pleasure in seconding the motion, thanking Lord Northbrook for presiding there that day. He was sure the meeting would endorse his statement that a more able and better Chairman it had never been their good fortune to sit under. It was a great pleasure and satisfaction to them to see a meeting conducted in the delightful manner and lucid way in which the noble Chairman had conducted the business that afternoon.

The vote of thanks was heartily accorded by the meeting.

The CHAIRMAN, in reply, begged to thank Col. Fergusson-Buchanan for the very kind way in which he had proposed the vote of thanks, and his friend, Sir Walter Gilbey, for the much too kind expressions he used in seconding it. He extremely regretted the reason of his occupying the chair that day, the illness of the President. He was very pleased if he had carried the business through to their satisfaction.

SHREWSBURY SHOW,

JUNE 30 TO JULY 4, 1914.

Officials of the Show.

PRESIDENT :

THE EARL OF POWIS.

Honorary Director.

Sir GILBERT GREENALL, Bart., C.V.O., Walton Hall, Warrington.

Stewards of Live Stock.

Horses.

CYRIL E. GREENALL, The Manor, Carlton Scroop, Grantham.
JOHN ROWELL, Bury, Huntingdon.

Cattle.

JOSEPH HARRIS, Brackenburgh Tower, Carlisle.

Sheep and Pigs.

C. W. TINDALL, Wainfleet, Lincolnshire.

Steward of Dairying and Poultry.

ERNEST MATHEWS, Little Shardeloes, Amersham, Bucks.

Steward of Forage.

J. HEATHCOTE ADDIE, Estate Office, Powis Castle, Welshpool.

Steward of Veterinary Examination.

CYRIL E. GREENALL, The Manor, Carlton Scroop, Grantham.

Stewards of Implements.

F. S. W. CORNWALLIS, Linton Park, Maidstone.
The Hon. J. E. CROSS, High Legh, Knutsford.

Stewards of Refreshments.

PERCY CRUTCHLEY, Sunninghill Lodge, Ascot.
WILLIAM HARRISON, Hall House, Leigh, Lancashire.

Steward of Education Exhibition.

Sir J. B. BOWEN-JONES, Bart., Council House Court, Shrewsbury.

Stewards of Arboricultural Exhibition.

The Hon. JOHN R. DE C. BOSCAWEN, Tregye, Perranwell, Cornwall.
A. A. PATON, Onclida, Sefton Park, Liverpool.

Stewards of Forestry.

GEORGE MARSHALL, Broadwater, Godalming.
C. COLTMAN ROGERS, Stanage Park, Brampton Brian.

Stewards of Finance.

CHARLES R. W. ADEANE, Babraham Hall, Cambridge.
THOMAS L. AVELING, Boley Hill House, Rochester.
RICHARDSON CARR, Estate Office, Tring Park, Herts.

Manager and Secretary of Dog Show.

THOMAS WHITFIELD, Talbot Chambers, Shrewsbury.

List of Judges at Shrewsbury, 1914.

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Surrey.

J. R. NAYLOR, F.R.I.B.A., Smith's Bank Chambers, Derby.

Secretary.

THOMAS MCBOW, 16 Bedford Square, London, W.C.

JUDGES OF IMPLEMENTS.

Miscellaneous Implements entered for Silver Medals.

H. W. BUDDIOM, Penbetsw, Nannercb, Mold.

W. H. CARTER, Moss Hall, Carrington, Manchester.

JUDGES OF LIVE STOCK, &c.

HORSES.

Shires.—Classes 1-11.

JOHN T. C. KADIE, The Rock, Newton Solney, Burton-on-Trent.

EDMOND WHINNERAH, Warton, Carnforth.

Clydesdales.—Classes 12-20.

PETER DEWAR, Amprior, Port of Monteith, by Stirling.

JAMES FLEMING, Fricockmains, Fricockheim, Forfarshire.

Suffolks.—Classes 21-28.

S. R. LIVINGSTONE-LEARMONTH, Catherington House, Horndean, Hants.

D. F. SMITH, Estate Office, Easton Park, Wickham Market.

Hunters.—Classes 29-42.

W. G. LAMBARDE, Bradbourne Hall, Sevenoaks.

HON. ALEXANDER PARKER, Norton Curlien, Warwick.

Polo Ponies.—Classes 43-50.

J. D. GOULDSMITH, Ashton Keynes, Cricklade.

REV. D. B. MONTEFIORE, Islip, Oxon.

Cleveland Bays and Coach Horses.—Classes 51 and 52.

THOMAS KNAGGS, Marske-by-the-Sea, Yorks.

Hackneys.—Classes 53-61; and Hackney Ponies.—Classes 62-65.

A. W. HICKLING, Adwholton, Nottingham.

ROBERT WHITWORTH, Southwood End, Halifax.

Shetland Ponies.—Classes 66 and 67.

ROBERT BRYDON, The Dene, Seaham Harbour.

Welsh Ponies.—Classes 68-77.

W. FORRESTER ADDIE, Estate Office, Powis Castle, Welshpool.

TOM JONES EVANS, Dolgellau, Newcastle Emlyn, Carmarthenshire.

Riding Hunters.—Classes 78-84.

W. G. LAMBARDE, Bradbourne Hall, Sevenoaks.

HON. ALEXANDER PARKER, Norton Curlien, Warwick.

Park Hack and Riding Ponies.

Classes 85-89.

J. D. GOULDSMITH, Ashton Keynes, Cricklade.

ROMER WILLIAMS, Newnham Hall, Daventry.

Harness Horses.—Classes 90-101.

ROMER WILLIAMS, Newnham Hall, Daventry.

The Right Hon. FREDERICK WRENCH, Killacoonna, Ballybrook, co. Dublin.

CATTLE.

Shorthorns.—Classes 102-114.

WILLIAM ANDERSON, Saphock, Old Meldrum, Aberdeenshire.

C. H. JOLLIFFE, Newbus Grange, Darlington.

WILLIAM SNOWBALL, Knapton Carr, Knapton Station, York.

Dairy Shorthorns.—Classes 115-119; and Dairy Cattle.—Classes 121 and 122.

W. H. HITCH, Estate Office, Cowley Manor, Cheltenham.

J. L. SHIRLEY, Silverton House, Bletchley.

Lincolnshire Red Shorthorns.

Classes 123-130.

E. H. CARTWRIGHT, North Elkington Manor, Louth, Lincolnshire.

ROBERT CHATTERTON, Wellbourn Hall, near Lincoln.

Hereford.—*Classes 132-146.*
J. COMPTON, Castle Farm, Leominster.
DEARMAN EDWARDS, Edgecombe, Swainshill, Hereford.
J. W. MILLYARD, Littlebridge, Bromyard.
Devon.—*Classes 147-163.*
FRANK J. MERSON, Farrington, North Petherton, Bridgwater.
South Devon.—*Classes 155-159.*
B. TRANT, Trethawle, Liskeard, Cornwall.
Longhorns.—*Classes 161-164.*
C. TOLLMACHER SCOTT, Bosworth Park, Nuneaton.
Sussex.—*Classes 166-171.*
GERALD WARDE, Tutsham, West Farleigh, Maidstone.
Welsh.—*Classes 172-178.*
W. VAUGHAN, Hafodybendi, Llanerfyl, Welshpool.
Red Polls.—*Classes 179-184.*
REGINALD B. ASTLEY, The Cottage at the Crossways, Hoe Benham, Newbury.
D. ABBOTT GREEN, Fingringhoe Hall, Colchester.
Aberdeen-Angus.—*Classes 186-191.*
JAMES COREY, Ardeer, Larne, co. Antrim.
JAMES WHYTE, Hayston, Glanais, N.B.
Galloways.—*Classes 192-196; and Highland.*—*Classes 197 and 198.*
W. A. MCTURK, Barlae, Dairy, Galloway.
Ayrshires.—*Classes 199 and 200.*
ALEX. Y. ALLAN, Aitkenlar, Dumbarton.
British Holsteins.—*Classes 202-206.*
HENRY P. RATCLIFF, Pebsham, Bexhill, Sussex.
Jerseys.—*Classes 208-215.*
C. W. JOURNEAUX, Devon Villa, St. Martins, Jersey.
H. B. NAPIER, Long Ashton Lodge, Long Ashton, Bristol.
Guernseys.—*Classes 217-223.*
W. A. GLYNN, Seagrave, Seaview, Isle of Wight.

Kerrys.—*Classes 225-228; and Dexters.*—*Classes 230-234.*
ROBERT BRUCE, Leinster House, Dublin.
COL. W. STALLARD, St. John's Hall, Worcester.
Milk Yield Prizes and Butter Tests.
Awards made on Certificate of the STEWARD OF DAIRYING.
SHEEP.
Oxford Downs.—*Classes 236-240.*
J. M. EADY, Lancefield, Thrapston, Huntingdon.
W. D. LITTLE, Middleton, Stoney, Bicester.
Shropshires.—*Classes 241-253.*
THOMAS FRANK, Cound Arbour, Cressage, Shrewsbury.
ARTHUR S. GIBSON, Coldham House, Fridaybridge, Wisbech.
WILLIAM NUNNERLEY, Kenwick, Ellesmere, Shropshire.
Southdowns.—*Classes 254-259.*
WILLIAM BROWN, Challoners, Roughton, Sussex.
HERBERT PADWICK, The Manor House, West Thorney, Emsworth.
Hampshire Downs.—*Classes 260-265.*
JAMES FLOWER, Chilmark, Salisbury.
T. A. EDNEY HATTE, The Mount, Whitechurch, Hants.
Suffolks.—*Classes 266-271.*
S. R. SHERWOOD, Playford, Ipswich.
Dorset Downs.—*Classes 272-274.*
H. R. JESTY, Roke Farm, Bere Regis, Wareham.
Dorset Horns.—*Classes 275-278.*
JAMES ATTRILL, Waytes Court, Brighton, Isle of Wight.
Bylands.—*Classes 279-283.*
FRANCIS HAWKINS, Sugwas, Hereford.
Kerry Hill (Wales).—*Classes 284 and 290.*
JOHN R. BACHE, Stud Farm, Knighton, Radnorshire.
RICHARD WILDING, Ragdon, Church Stretton.
Lincolns.—*Classes 291-297.*
RICHARD AVES, Riby Grove, Great Grimsby.
J. M. STRICKLAND, Warren House, Brundisby, Easingwold.

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Leicesters.—*Classes 298-301.*

J. A. STAMPER, Highfield House, Nonnington, Malton.

Border Leicesters.—*Classes 302-304.*

A. SMITH, Leaston, Humbie, East Lothian.

THOMAS TEMPLETON, Sandyknowe, Kelso.

Wensleydales.—*Classes 305-308.*

WILLIAM RHODES, Springfield, Ingleton, via Kirkby Lonsdale.

Lons.—*Classes 309 and 310; and Derbyshire Gritstones.*—*Classes 311 and 312.*

GEORGE RARCROFT, Bank Lane, Ramsbottom, Manchester.

Kent or Romney Marsh.—*Classes 313-318.*

ALFRED AMOS, Wye, Kent.

FRANCIS DE B. COLLARD, Minster Abbey, Ramsgate.

Cotswolds.—*Classes 319-322.*

GEORGE FREEMAN, Sherborne, North-leach, R.S.O., Glos.

Devon Long Wools.—

Classes 323 and 324.

JOHN H. GIBBINGS, Week Barton, North Tawton, Devon.

South Devons.—*Classes 325-329.*

JOHN STOOKE, Sherford, Brixton, Plymouth.

Dartmoors.—*Classes 330-332.*

G. JEFFREY, Watson Barton, Bridgestowe, Devon.

Exmoor Horn.—*Classes 333-335.*

T. C. PEARSE, Leigh, Dulverton, Somerset.

Cheviots.—*Classes 336-338.*

WILLIAM THOMPSON, Sunday Sight, Bellingham, Northumberland.

Herdwicks.—*Classes 339 and 341.*

TOM NEWBY, Prior Scale, Calderbridge, Cumberland.

Welsh Mountain.—*Classes 342 and 346.*

W. CONWY BELL, The Ancoffer House, Harper-Adams Agricultural College, Newport, Salop.

THOMAS WILLIAMS, Tirgof Farm, Ystradgynlais, Breconshire.

Black-faced Mountain.—

Classes 347 and 348.

W. A. McTUCK, Barlae, Dalry, Gallo-way.

PIGS.

Large Whites.—*Classes 349-356.*

D. W. GUNN, Craigenook Farm, Black-hall, Edinburgh.

Middle Whites.—*Classes 357-362.*

H. W. BISHOP, Manor Farm, Penelley, Tring.

Tamworths.—*Classes 363-368.*

C. HOWARD TAYLOR, Hampole Priory, Doncaster.

Berkshires.—*Classes 369-374.*

JAMES LAWRENCE, Stall Pitts Farm, Shitvedham, Berks.

Large Blacks.—*Classes 375-380.*

A. H. CORRIALL, Bldo House, Bury St. Edmunds.

Lincolnshire Curly-coated.—

Classes 381-386.

ROBERT WRIGHT, Hanby Hall, Barchile-Marsh, R.S.O., Lincs.

POULTRY.

Classes 387-544.

H. S. ANTHONY, Euxton, nr. Chorley, Lancs.

JAMES BATEMAN, Midthorpe, Westmorland.

ALFRED BIRCH, Sefton, via Seaforth, nr. Liverpool.

W. W. BROOMHEAD, Chalfont St. Peter, Bucks.

W. J. GOLDING, Weald, Kent.

JOHN MEIKLE, Camugau, Gwynn, Ayrshire.

MISS CLARA RILOT, Hartley Court, Reading.

W. H. SILVESTER, Hawthorns, Hillsborough Park, Sheffield.

JOHN WHARTON, Huneycott, Hawes, Yorkshire.

PRODUCE.

Butter.—*Classes 546-560.*

ALICE TOLIN, The Molland Agricultural and Dairy College, Kingston, Derby.

Cheese.—*Classes 561-569.*

JOHN BENSON, The Kettering Dairy, Dalroth Place, Kettering.

A. N. SHORTO, Army and Navy Co-operative Society, Ltd., 165 Victoria Street, Westminster, S.W.

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Bacon and Hams.—Classes 560-567.

D. J. WILLIAMS, 41 Market Place, Leicester.

Cider and Perry.—Classes 568-575.

B. T. P. BARKER, M.A., Long Ashton, Bristol.

GEORGE CHILD, The Lawn, Nunnington, Hereford.

Bottled Fruits.—Classes 576-580.

J. SPIRES, Army and Navy Co-operative Society, Ltd., 105 Victoria Street, Westminster, S.W.

Wool.—Classes 581-598.

J. W. COLLINSON, 24 Nelson Street, Bradford.

PERCY LANCASTER, Bradford.

Hives and Honey.—Classes 599-625.

Rev. T. J. EVANS, St. Peter's Vicarage, Rock Ferry, Cheshire.

Rev. G. E. H. PRATT, Sheinton Rectory, Shrewsbury.

A. G. PUGH, Beech House, Beeston, Notts.

W. F. REID, Field Side, Addlestone, Surrey.

COMPETITIONS.

Horse Jumping.

MICHAEL G. LLOYD BAKER, The Cottage, Hardwicke, Gloucester.

S. BURRELL, Outhill, Studley, Warwickshire.

F. L. GOOCH, F.R.C.V.S., St. Martin's, Stamford.

Horse-shoeing.

BRENNAN DE VINE, F.R.C.V.S., Holiday Street Wharf, Birmingham.

E. HOOPER ORGAN, A.F.C.I., 8 Long Street, Wootton-under-Edge, Glos.

Butter-making.

Professor R. J. DRUMMOND, Dairy School, Kilmarnock.

FARMS.

Classes 1 and 2.

ALFRED BROOME, Preston Brook, Warrington.

D. E. BYRD, Spurstow Hall, Tarporley.

Classes 3 and 4.

THOMAS A. BUTTAR, Corston, Coupar Angus, N.B.

FRANK B. WILKINSON, Cavendish Lodge, Edwinstowe, Newark.

CHAMPIONSHIP HEDGING.

R. C. COOPER, Waltham, Mowbray.

W. W. HUTTON, Estate Office, Kington, Warwickshire.

ARBORICULTURE.

W. J. BIAN, Royal Botanical Gardens, Kew, Surrey.

Rev. A. T. BOSCAWEN, Luffield Rectory, Long Rock, R.S.O., Cornwall.

JOHN A. NIX, Tilgate, Chichester, Surrey.

FORESTRY.

Dr. AUGUSTINE HENRY, Royal College of Science, Dublin.

A. A. MYLES, Belgrave Lodge, Pudding, Wrexham.

PLANTATIONS AND HOME NURSERIES.

J. McLAREN, Chopwellwood, Howlands Gill, Co. Durham.

W. B. HAVELOCK, The Nurseries, Brocklesby Park, Lincs.

HOME-GROWN TOBACCO.

F. WATSON, 56 South Castle Street, Liverpool.

CHIEF VETERINARY OFFICER.

JOHN MALCOLM, F.R.C.V.S., Holiday Street Wharf, Birmingham.

ASSISTANT VETERINARY OFFICER.

WILLIAM TRIGGER, F.R.C.V.S., Newcastle, Staffs.

VETERINARY INSPECTORS.

W. E. LITT, M.R.C.V.S., St. John's House, Shrewsbury.

Professor J. MACQUEEN, F.R.C.V.S., Royal Veterinary College, Camden Town, London, N.W.

JOHN R. CARLESS, M.R.C.V.S., Murvance, Shrewsbury.

BRENNAN DE VINE, F.R.C.V.S., Holiday Street Wharf, Birmingham.

F. L. GOOCH, F.R.C.V.S., St. Martin's, Stamford.

RICHARD HUGHES, F.R.C.V.S., 26 Willow Street, Oswestry.

W. G. LITT, M.R.C.V.S., St. John's House, Shrewsbury.

JAMES MARTIN, M.R.C.V.S., Wreckin View, Bridge Road, Wellington, Salop.

H. L. PEMBERTON, M.R.C.V.S., East Castle, Bridgnorth, Salop.

AWARDS OF PRIZES AT SHREWSBURY.

1914.

ABBREVIATIONS.

- I., First Prize. II., Second Prize. III., Third Prize. IV., Fourth Prize.
V., Fifth Prize. R. N., Reserve Number. H. C., Highly Commended.
C., Commended.

N.B.—The responsibility for the accuracy of the description or pedigree, and for the eligibility to compete of the animals entered in the following classes, rests solely with the Exhibitors.

Unless otherwise stated, each Prize Animal in the Classes for Horses, Cattle, Sheep, and Pigs, was "bred by Exhibitor."

HORSES.

Shires.

Class 1.—Shire Stallions, foaled in 1913.

[21 entries.]

No. in 5
Order

- 18 I. (£20.) & R. N. for Champion?—THE DUKE OF WESTMINSTER, Eaton Hall, Chester, for Eaton Fenland King, brown, bred by G. L. Morris, Thorney, Peterborough; s. Eaton Nonsuch 2730, d. Fenland Dinah 5027 by Hendre Conqueror 17385.
- 19 II. (£10.)—LORD ROTHSCHILD, Tring Park, Herts, for Bostwain, bay; s. Bahangley Nulli Secundus 2683, d. Cattlegate Rose 55401 by Birdson Monestrel 19237.
- 20 III. (45.)—THE EDCOTE SHORTHORN CO. LTD., Edgocote, Banbury, for Normanby Jesse, bay, bred by Sir Berkeley G. D. Sheffield, Bt. Normanby Park, Doncaster; s. Normanby Champion 27635, d. Normanby Jessica 1185 by Childwick Champion 22215.
- 21 IV. (44.)—COLIN MACIVER, Blaisdon Hall, near Longhope, Glos, for Blaisdon Draughtsman, bay; s. Warton Draughtsman 27265, d. Blaisdon Princess 3080 by Montford Jupiter 18440.
- 22 V. (44.)—EDWARD GREEN, The Moors, Welshpool, for Moors Jameson, bay, bred by William Talbot, Nottwill Farm, Uttoxeter; s. Sterling Jameson 2528, d. Darlaston Princess 69440 by Harold's Heir 26549.
- 23 R. N. & H. C.—SIR WALFOLE GREENWELL, Bt., Marden Park, Wokingham, Surrey, for Marden John.
H. C.—5, 19.
C.—4, 20.

Class 2.—Shire Stallions, foaled in 1912. [13 entries.]

- 24 I. (£20. & Champion?)—THE EDCOTE SHORTHORN CO. LTD., Edgocote, Banbury, for Orfold Blue Blood, bay, bred by Alfred Luckin, Orfold, Billingshurst; s. Halstead Blue Blood 27397, d. Easter Eve 53741 by Hendre Hydrometer 18082.
- 25 II. (£10.)—F. E. MCINTY, Umberslade, Hockley Heath, Warwickshire, for King's Warrior 31583, bay, bred by T. Jones, Quarry Farm, Godstone; s. King of Tandridge 21351, d. Marlen Fan 2nd 51673 by Tatton Prior 21953.
- 26 III. (45.)—LORD ROTHSCHILD, Tring Park, Herts, for Moulton Nonsuch 31680, brown, bred by A. H. Clark, Moulton Kaugate, Spelling; s. Bahangley Nulli Secundus 26891, d. Tatton Duchess 63062 by Tatton Dray King 2577.
- 27 IV. (44.)—LORD MIDDLETON, Bird-sall, Malton, for Albany Forest King 21151, bay, bred by W. Webster, Stockton-on-Forest, York; s. Redlynch Forest King 25628, d. Willaston Queen 5579 by Marchless Walter 21649.
- 28 R. N. & H. C.—ERNEST J. WYTHES, Copped Hall, Epping, for Copped Hall Monestrel.
H. C.—5.

* Prizes given by the Shire Horse Society.

* Champion Gold Medal given by the Shire Horse Society for the best Stallion in Classes 1, 2.

Award of Live Stock Prizes at Shrewsbury, 1911. iii

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."]

- 107 II. (210).—SAM S. RAINGILL, The Grange, Ringway, Altrincham, for May 1908; bay, foaled in 1910, bred by D. Crawford, Lutterworth, Leicestershire; s. Lord Chamberlain 2660, d. Bonny 5083 by Hutton Baron 1742. [Foal by Pendley Manor Prince 2543.]
- 108 III. (25).—J. MORRIS BELCHER, Tibberton Manor, Newport, Salop, for Robertson Forest Queen 6039, bay, foaled in 1910, bred by G. Lunt & Sons, Higher Morrey, Shrewton, Market Drayton; s. Redlynch Forest King 2262, d. W. Gray Fleamer 2604 by Markeaton Long Tom 1822. [Foal by Xorbury Menestrel 2543.]
- 109 IV. (24).—THOMAS EWART, Dunsmore Stud Farm, Rugby, for Brockhurst Brocade 6754, brown, foaled in 1910, bred by W. Kenney, Brockhurst, Lutterworth; s. Dunsmore Professor 2318, d. Brockhurst Daisy 3226 by Birdsell 2648. [Foal by Dunsmore Premier 2518.]
- 110 E. N. & H. C.—SIR EDWARD STERN, Fan Court, Chertsey, for Dunsmore Baroness, H.C.—96. C.—90.

Class 8.—Shire Mares, foaled in or before 1909, with Foals at foot. [18 entries.]

- 101 I. (23, & Champion).—SIR WALPOLE GREENWELL, BT, Marden Park, Wokingham, Surrey, for Dunsmore Chessie 6033, chestnut, foaled in 1908, bred by J. & M. Hewitt, Monks Kirby, Lutterworth; s. Dunsmore Bash 2135, d. Jewess Eve 2037 by Buckrup Prince Harold 1824. [Foal by Marion Forest King 2543.]
- 102 II. (210).—JOHN BRADLEY, Halstead, Tilton, Leicester, for Halstead Royal Duchess 3352, bay, foaled in 1909; s. Lockinge Forest King 1866, d. Halstead Duke 2222 by Menestrel 1130. [Foal by Rickford Coming Star 2503.]
- 103 III. (25).—J. G. WILLIAMS, Pendley Manor, Tring, for Bardon Forest Princess 5068, bay, foaled in 1907, bred by W. Greweck, Delford, Leicester; d. Lechmere Lord King 1867, d. Princess 4903 by Fauld Charming 1824. [Foal by Xorbury Menestrel 2543.]
- 104 IV. (24).—W. & H. WHITLEY, Primley Farm, Pateston, for Xorbury June 5155, brown, foaled in 1905, bred by Leopold Salomon, Xorbury Park, Leek, s. Borden Champion 1872, d. Childwick Young 3355 by Childwick Majesty 1254. [Foal by Tatton Dray King 2377.]
- 105 V. (24).—THE EDUCOTE SHORTHORN CO., LTD., Educote, Banbury, for Writtle Coming Queen 6549, brown, foaled in 1908, bred by J. & S. Hilditch, Hilditch, Writtle, Chelmsford; s. Ratcliffe Coming King 2568, d. Writtle Duchess 2604 by Moors Regent 1742. [Foal by Severn Masterman 2815.]
- 119 E. N. & H. C.—FURNESS J. WYTHES, Copped Hall, Epping, for Copped Hall Rosebud, H.C.—112. C.—115.

Class 9.—Shire Colt Foals, the produce of Mares entered in Classes 7 or 8. [13 entries.]

- 121 I. (210).—SIR EDWARD STERN, Fan Court, Chertsey, for Timgad, black, foaled April 12; s. Tatton Dray King 2377, d. Dunsmore Baroness 2604 by Loxley Baron 2371.
- 122 II. (25).—SAM S. RAINGILL, The Grange, Ringway, Altrincham, for May, foaled May 20; s. Pendley Forest Prince 2575, d. May 1908.
- 123 III. (23).—JAMES MERRITT, 40 Adelphi Street, Park-shed, Epsom, for Jay, foaled April 12; s. Eaton Nubush 2530, d. Yatesbury Forest Queen 6045 by Lockinge Forest King 1866.
- 124 E. N. & H. C.—WILLIAM PARKER, Roden Hall, Wrexham, H.C.—122. C.—132.

Class 10.—Shire Filly Foals, the produce of Mares entered in Classes 7 or 8. [13 entries.]

- 141 I. (210).—J. G. WILLIAMS, Pendley Manor, Tring, for Jay, foaled March 1; s. Xorbury Menestrel 2543, d. Bardon Forest Princess 5068 by Lockinge Forest King 1866.
- 142 II. (25).—ROBERT HEATH, Biddulph Grange, Biddulph, Staffs, for Jay, foaled March 1; s. Rickford Coming King 2503, d. Johnson Belle 6128 by Dunsmore Under 2507.
- 143 III. (23).—EDWARD GREEN, The Moors, Welshed, for brown, foaled April 11; s. Moors Kitchener 2543, d. Willaston Countess 46726 by Watton Drayman 1323.
- 144 E. N. & H. C.—SIR WALPOLE GREENWELL, BT, Marden Park, Wokingham, Surrey, H.C.—130, 140, 145. C.—134, 135, 143.

Class 11. Shire Geldings, foaled in or before 1911. [15 entries.]

- 151 I. (215).—GEORGE G. MARSH, Mount Pleasant Farm, Speke, near Liverpool, for Tatton Herald, black, foaled in 1907, bred by the late Earl Erection of Tatton, Tatton Park, Cheshire; s. Tatton Friar 2193, d. Tatton Aurora 4559 by Buscot Harold 1856.

* Champion Gold Medal given by the Shire Horse Society for the best Mare or Filly in Classes 4-8.

* Prizes given by the Shire Horse Society.

liv *Award of Live Stock Prizes at Shrewsbury, 1913*

(Unless otherwise stated, each prize animal named below was "bred by export.")

- 154 II. (£10).—LIVERPOOL CORPORATION, Veterinary Department, Munnings Road, Liverpool, for John Bull, bay, foaled in 1905, bred by J. B. Gantner, Rye, Essex, Notts; s. Intake Albert, d. Kinoulton Lily by Nottingham Conqueror.
- 155 III. (£51).—LIVERPOOL CORPORATION, for Jolly Jenkin, bay, foaled in 1905, bred by Fred Trott, New Salts Farm, Shoreham-by-Sea; s. Hendre Champion, d. d. Thrush Blossom 34199 by Mona's Prince 9633.
- 156 IV. (£4).—THOMAS GREEN, The Bank, Pool Quay, Welshpool, for Morton 2, bay, foaled in 1911, bred by Thomas Williams, Lower Buildings, Park Eytton, Wiltshire; s. Limestone Lad 24354, d. Bess by Mathrafal Esquin 24432.
- 157 R. N. & H. C.—MAWERS, LIMITED, 223, Fulham Road, London, S.W., for Caractacus, H. C.—149, 152, 153. C.—146, 148, 158, 160.

Clydesdales.²

Class 12.—Clydesdale Stallions, foaled in 1913. [9 entries.]

- 165 I. (£20, & Champion.*)—JAMES GRAY, Birkenwood, Gargunnoch, Stirling, for The Birkenwood (vol. 36, p. 95), bay; s. Apukwa 14567, d. Lady Jane 19569 by Bonnie-Queen's Guard 19866.
- 166 II. (£10).—A. & W. MONTGOMERY, Netherhall and Banks, Kirkcubright, for bay, bred by John Quicksink, Kempton, Twynholm; s. Signet 16819, d. Kate of Kempton 2452 by Rathillet 11870.
- 168 III. (£5).—WILLIAM DUNLOP, Dunure Mains, Ayr, for Dunure Kaleidoscope (vol. 36, p. 89), bay, bred by Sir John Gilmour, Bart., Montrave, Leven; s. Baron of Buchlyvie 11263, d. Imperial Beauty 21546 by Everlasting 11331.
- 162 R. N. & H. C.—WILLIAM DUNLOP, for Dunure Criterion, C.—161.

Class 13.—Clydesdale Stallions, foaled in 1912. [6 entries.]

- 170 I. (£20, & R. N. for Champion.*)—ROBERT BRYDON, The Dene, Seaham Harbour, for Phillipine 18044, bay, bred by J. G. Phillips, The Baggrab, Carlisle; s. Bonnie Buchlyvie 14032, d. Denton Lady 33569 by Royal Bounty 10873.
- 171 II. (£10).—WILLIAM DUNLOP, Dunure Mains, Ayr, for Dunure Keynote 17669, bay; s. Baron of Buchlyvie 11263, d. Dunure Ideal 21283 by Auchenlower 13047.
- 175 III. (£5).—JOHN SAMSON, Drumcross, Bishopston, Renfrewshire, for Drumcross Radiant (vol. 35, p. 178), brown; s. Apukwa 14567, d. Rosetta 21770 by Royal Edward 11465.
- 174 R. N. & H. C.—D. D. MURRAY, Redmarshall Mains, Ferry Hill, for The Whip.

Class 14.—Clydesdale Stallions, foaled in 1911. [7 entries.]

- 181 I. (£20).—A. & W. MONTGOMERY, Netherhall and Banks, Kirkcubright, for Prince of Brougham 18059, brown, bred by Lord Brougham and Vaux, Brougham, Perth; s. Baron of Burgie 13345, d. Damsel of Brougham 26106 by Mazawattee 16817.
- 177 II. (£10).—WILLIAM DUNLOP, Dunure Mains, Ayr, for Dunure Simplicity 17237, bay; s. Baron of Buchlyvie 11263, d. Fair Lothian 19421 by Lord Lothian 5998.
- 182 III. (£5).—A. & W. MONTGOMERY, for Trassilian 18144, bay, bred by James Bart, Glasgow, Kirkeowan; s. Sir Hugo 10824, d. Daisy 2nd of Challock 21069 by Baron's Pride 9122.
- 179 R. N. & H. C.—JAMES KILPATRICK, Craigie Mains, Kilmarnock, for Craigie General.

Class 15.—Clydesdale Fillies, foaled in 1913. [8 entries.]

- 190 I. (£20).—D. Y. STEWART, Lucaston, Crieff, for Verona (vol. 38, p. 214), black; s. Baron of Buchlyvie 11263, d. Veronique 16758 by Montrave Donald 11121.
- 188 II. (£10).—JAMES KILPATRICK, Craigie Mains, Kilmarnock, for Craigie Sylvia (vol. 36, p. 41), bay, bred by Robert Chapman, Glenboig; s. Apukwa 14567, d. Heather Charm 26193 by Baron's Pride 9122.
- 183 III. (£5).—ROBERT BRYDON, The Dene, Seaham Harbour, for Saucy Queen (vol. 36, p. 358), bay; s. Bonnie Buchlyvie 14032, d. Silver Queen 34957 by Silver Cup 11184.
- 186 R. N. & H. C.—JAMES GREY, Birkenwood, Gargunnoch, Stirling, for Meta, H.C.—187.

Class 16.—Clydesdale Fillies, foaled in 1912. [7 entries.]

- 191 I. (£20).—ANDREW BROOKS, North Elphinstone, Tranent, for Lady Betty (vol. 35, p. 25), light bay; s. Apukwa 14567, d. Bet of Bequhan 23688 by Baron's Pride 9122.
- 194 (£10).—J. E. KIRK, Harvestoun Castle, Dollar, for Vanda (vol. 35, p. 189), bay, bred by J. Scott, Kilmurray, Newtyle; s. Royal Guest 15363, d. Kilmurray Vindict 27141 by Baron's Best 11567.

¹ Prizes given by the Shire Horse Society.

² £50 towards these Prizes were given by the Clydesdale Horse Society.

³ Champion Prize of £10 given by the Clydesdale Horse Society for the best Stallion in Classes 12-14.

Board of Live Stock Prizes at Shrewsbury, 1914. 15

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."

- 117 II. (£25.)—D. D. MURRAY, Redmarshall Mains, Ferry Hill, for *Trinkling Star* (vol. 33, p. 414), brown, bred by Robert Brydon, The Dene, Seaham Harbour; s. Bonnie Buchlyvie 14032, d. Twilight 32206 by Silver Cup 11184.
118 E. N. & H. C.—EVERARD J. LAMB, Hayton House, Carlisle, for *Lady Gay*.

Class 17.—Clydesdale Fillies, foaled in 1911. [3 entries.]

- 119 I. (£20.)—ROBERT BRYDON, The Dene, Seaham Harbour, for *Silver Bangle* (vol. 31, p. 74), brown; s. Bonnie Buchlyvie 14032, d. Syringa 26129 by Silver Cup 11184.
120 II. (£10.)—J. E. KERR, Harviestoun Castle, Dollar, for *Aline* (vol. 24, p. 646), bay, bred by W. Hood, Balmae, Kirkcudbright; s. Baron's Pride 9122, d. Balmae Mattie 26750 by Sylvander 10583.
121 III. (£5.)—H. E. ROBERTS, Monk Castle, Southwaite, Carlisle, for *Rosa* (vol. 34, p. 332), bay, bred by James Sturgeon, High Kyleston, Ayr; s. Auchenflower 12007, d. Nell of High Kyleston 30575 by Dunure Baron 12561.

Class 18.—Clydesdale Mares with Foals at foot. [6 entries.]

- 122 I. (£20, & Champion.)—WILLIAM DUNLOP, Dunure Mains, Ayr, for *Dunure Chosen* (vol. 34, p. 66), brown, foaled in 1911; s. Baron of Buchlyvie 11233, d. Dunure Ideal 12933 by Auchenflower 12007. (Foal by Dunure Stephen 12875.)
123 II. (£10, & R. N. for Champion.)—WILLIAM DUNLOP, for *Sarcelle* 26601, brown, foaled in 1908, bred by G. A. Anderson, Comisty, Huntly; s. Everisling 11331, d. Betty of Comisty 16473 by Prince Thomas 10392. (Foal by Dunure Stephen 12875.)
124 III. (£5.)—ROBERT BRYDON, The Dene, Seaham Harbour, for *Silver Queen* 34957, bay, foaled in 1908, bred by the Seaham Harbour Stud Co.; s. Silver Cup 11184, d. Seaham Queen by Lord Stewart 10081. (Foal by Bonnie Buchlyvie 14032.)
125 E. N. & H. C.—G. S. F. EDWARDS, Nunthorpe Hall, Yorks, for *Beauty of Stainsby*.

Class 19.—Clydesdale Fials, the produce of Mares entered in Class 18. [4 entries.]

- 126 I. (£10.)—ROBERT BRYDON, The Dene, Seaham Harbour, for bay colt, foaled April 25; s. Bonnie Buchlyvie 14032, d. Silver Queen 34957 by Silver Cup 11184.
127 II. (£5.)—WILLIAM DUNLOP, Dunure Mains, Ayr, for bay filly, foaled May 21; s. Dunure Stephen 12875, d. Sarcelle 26601 by Everisling 11331.
128 III. (£3.)—WILLIAM DUNLOP, for bay colt, foaled June 2; s. Dunure Stephen 12875, d. Dunure Chosen (vol. 34, p. 66) by Baron of Buchlyvie 11233.

Class 20.—Clydesdale Geldings, foaled in or before 1911. [5 entries.]

- 129 I. (£15.)—J. & W. MEIKLEN, Bega, Kirkcaldy, for chestnut, foaled in 1911, bred by Dr. Malcolm, Craigearn, Kinnaird; s. Hillhead Chief 10774, d. Bella 2nd 12982 by Darnley's Hero 5387.
130 II. (£10.)—THE SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY, LTD., 35 Morrison Street, Glasgow, for Peter, grey, foaled in 1912, bred by John Young, Blackloch, Dalbeattie; s. Scotland's Sentinel 14838, d. by Baron's Pride 9122.
131 III. (£5.)—HUGH TODD, Harperland, Kilmarnock, for grey, foaled in 1909, bred by James Barclay, Kinnadie, Old Deer; s. Alderman, d. Kate of Kinnadie 17342 by Grand Prince 6815.
132 E. N. & H. C.—CHRISTOPHER BIRD, Yanwath Hall, Penrith, for Nelson.

Suffolks.²

Class 21.—Suffolk Stallions, foaled in 1913. [4 entries.]

- 133 I. (£20.)—KENNETH M. CLARK, Sudbourne Hall, Orford, Suffolk, for *Sudbourne Ararat* 4290; s. Sudbourne Arabi 3267, d. Sudbourne Diamond 6694 by War Cry 3628.
134 II. (£10.)—SIR CUTBERT QUILTER, BT. M.P., Bawdsy, Woodbridge, for *Earl Grey* 4219, bred by William Grey, Parham Hall; s. Sudbourne Arab 3267, d. Daisy 4206 by Sutton Swell 2680.
135 III. (£5.)—A. CARLYLE SMITH, Sutton Hall, Woodbridge, for *Ashmoor Conrake* 4242; s. Bawdsy Harvester 3076, d. Coquette 5125 by Record 2679.
136 E. N. & H. C.—C. B. LEAKE & J. M. LONGE, Harefield Park, Harefield, Middlesex, for *Bredfield Czar*.

Class 22.—Suffolk Stallions, foaled in 1912. [8 entries.]

- 137 I. (£20, & R. N. for Champion.)—KENNETH M. CLARK, Sudbourne Hall, Orford, Suffolk, for *Sudbourne Bellman* 4153; s. Sudbourne Beaumontic 3298, d. Sudbourne Massie 5869 by Eclipse 2677.
138 II. (£10.)—KENNETH M. CLARK, for *Sudbourne Aristocrat* 4152; s. Sudbourne Arabi 3267, d. Sudbourne Mermaid 6012 by Sudbourne Sun-bone 3357.

¹ Champion Prize of £10 given by the Clydesdale Horse Society for the best Mare or Filly in Classes 15-18.

² £50 towards these Prizes were given by the Suffolk Horse Society.

³ The "Coronation" Challenge Cup given by the Suffolk Horse Society for the best Stallion in Classes 21-23.

lvi *Award of Live Stock Prizes at Shrewsbury, 1911.*

[Unless otherwise stated, each prize animal named below was "bred by ex-"]

- 220 III. (45.) E. SCOTT CATCHPOLE, The Priory, Darsham, Saxmundham, for *Englander* 4281; s. Sudbourne Beau monde 3688, d. Bentley Nanette 13, s. Sudbourne Arabi 3287.
H.C.—245. C.—226.

Class 23.—Suffolk Stallions, foaled in 1911. [4 entries.]

- 228 I. (420, & Champion.)—KENNETH M. CLARK, Sudbourne Hall, Orford, Suffolk, for *Sudbourne Red Cup* 4012; s. Dennington Cupbearer 3088, d. Sudbourne Red Queen 3554 by Sudbourne Count 3257.
231 II. (410.)—SIR CUTHBERT QUILTER, BT., M.P., Bawdsey, Woodbridge, for *Bardsey Sickleman* 4043, bred by the late Sir Cuthbert Quilter, Bt.; s. Bawdsey Harvester 3076, d. Sunshine 6281 by Conquest 2292.
229 III. (45.)—ARTHUR T. PRATT, Morston Hall, Trimley, Ipswich, for *Morston Gaid* 4234, bred by John Symonds, Thistleton Hall, Burgh, Woodbridge; s. Bawdsey 3347, d. Rose 5144 by Saturn 2653.

- 228 R. N. & H. C.—E. SCOTT CATCHPOLE, for *Bentley Cupbearer*.

Class 24.—Suffolk Fillies, foaled in 1913. [7 entries.]

- 236 I. (420.)—KENNETH M. CLARK, Sudbourne Hall, Orford, Suffolk, for *Sudbourne Redstar* 7531; s. Sudbourne Peter 3655, d. Sudbourne Red Queen 3554 by Sudbourne Count 3257.
235 II. (410.)—KENNETH M. CLARK, for *Sudbourne Doris* 7823; s. Sudbourne Peter 3955, d. Sudbourne Dolly 5521 by Sudbourne Count 3257.
233 III. (45.)—RAYMOND J. CATCHPOLE, Darsham Hall, Suffolk, for *Darsham Darby* 1965, bred by M. Freeman, Henley, Suffolk; s. Sudbourne Arab 3308, d. Bardsey Largesse 1652 by Bawdsey Harvester 3076.

Class 25.—Suffolk Fillies, foaled in 1912. [5 entries.]

- 242 I. (420.)—SIR CUTHBERT QUILTER, BT., M.P., Bawdsey, Woodbridge, for *Bawdsey Chieftainess* 7453; s. Bawdsey Laddie 3637, d. Bawdsey Jewel 6485 by Sudbourne Count 3257.
245 II. (410.)—SIR CUTHBERT QUILTER, BT., M.P., for *Bawdsey Goddess* 7451; s. Bawdsey Marshall Ney 3385, d. Bawdsey Minerva 6449 by Bawdsey Harvester 3076.
239 III. (45.)—KENNETH M. CLARK, Sudbourne Hall, Orford, Suffolk, for *Sudbourne Laurel* 7698; s. Sudbourne Arabi 3287, d. Sudbourne Laura 6027 by Sudbourne Sunshine 3374.

- 241 E. N. & H. C.—C. F. MARRINER, Hasketon, Woodbridge, for *Hasketon Kiddy*.

Class 26.—Suffolk Fillies, foaled in 1911. [5 entries.]

- 246 I. (420.)—KENNETH M. CLARK, Sudbourne Hall, Orford, Suffolk, for *Sudbourne Merrilass* 7218; s. Dennington Cupbearer 3088, d. Sudbourne Mermaid 6012 by Sudbourne Sunshine 3374.
248 II. (410.)—SIR CUTHBERT QUILTER, BT., M.P., Bawdsey, Woodbridge, for *Bawdsey China Doll* 2nd, 7352, bred by the late Sir Cuthbert Quilter, Bt.; s. Bentley War Cry 3075, d. Bawdsey Wax Doll 6493 by Bawdsey Harvester 3076.
244 III. (45.)—E. SCOTT CATCHPOLE, The Priory, Darsham, Saxmundham, for *Bentley Vixen* 8066, bred by E. A. Cook, Dennington; s. Dennington Cupbearer 3088, d. Noddy 5170 by Border Minstrel 2287.

- 247 E. N. & H. C.—KENNETH M. CLARK, for *Sudbourne Twilight*.

Class 27.—Suffolk Mares, with Foals at foot. [6 entries.]

- 251 I. (420.)—SIR CUTHBERT QUILTER, BT., M.P., Bawdsey, Woodbridge, for *Bawdsey Bloom* 7034, foaled in 1910, bred by the late Sir Cuthbert Quilter, Bt.; s. Bawdsey Harvester 3076, d. Ham-bolt Blossom 5716 by Prince Arthur 2288. [Foal by Bawdsey Marshall Ney 3385.]
252 II. (410.)—SIR CUTHBERT QUILTER, BT., M.P., for *Bawdsey Jewel* 6485, foaled in 1906, bred by the late Sir Cuthbert Quilter, Bt.; s. Sudbourne Count 3257, d. Sutton Ruby 5689 by Warrior 1934. [Foal by Bawdsey Laddie 3637.]
250 III. (45.)—KENNETH M. CLARK, Sudbourne Hall, Orford, Suffolk, for *Sudbourne Diamond* 6601, foaled in 1907, bred by the Rev. A. Maude, Bury St. Edmunds; s. War Cry 3075, d. Badwell Deuper 5724 by Tatler 2311. [Foal by Sudbourne Arabi 3287.]
253 R. N. & H. C.—SIR CUTHBERT QUILTER, BT., M.P., for *Bawdsey Wax Doll*.
H.C.—251.

Class 28.—Suffolk Foals, the produce of Mares entered in Class 27. [6 entries.]

- 258 I. (410.)—SIR CUTHBERT QUILTER, BT., M.P., Bawdsey, Woodbridge, for colt, foaled January 14; s. Bawdsey Laddie 3637, d. Bawdsey Jewel 6485 by Sudbourne Count 3257.
259 II. (45.)—SIR CUTHBERT QUILTER, BT., M.P., for colt, foaled January 8; s. Bawdsey Marshall Ney 3385, d. Bawdsey Wax Doll 6493 by Bawdsey Harvester 3076.

^a The "Coronation" Challenge Cup given by the Suffolk Horse Society for the best Stallion in Classes 21-23.

Award of Live Stock Prizes at Shrewsbury, 1914. 151

[Unless otherwise stated, each prize animal named below was bred by exhibition.]

- 256 **III. (23).—KENNETH M. CLARE**, Sudbourne Hall, Oxford, Suffolk, for colt foaled February 8; *s.* Sudbourne Arrow 325; *d.* Sudbourne Diamond 664; *g.* War Cry 528.
 257 **R. N. & H. C.—THE EARL OF STRADBROKE**, Henham Hall, Warrington.

Hunters.¹

Class 29.—Thoroughbred Colts, foaled in 1913, entered or eligible for entry in the General Stud Book, likely to make Hunter Stallions. [3 entries.]

- 252 **I. (20).—MISS MARY A. DALRYMILE**, Edlinton, St. Boswells, for *Harry Gowk*, chestnut; *s.* Elector (vol. 21, p. 411 G.S.B.) *d.* Damsel 2nd (vol. 20, p. 188 G.S.B.) *by* Kinclike.
 253 **II. (21).—WILLIAM H. SHIERS**, Needwood House, Burton-on-Trent, for brown; *s.* Teewich (vol. 20, p. 628 G.S.B.) *d.* Gallique Maid (by Gillie) *g.* Lind.
 254 **III. (25).—JESSE BUNNETT**, New House Shipton, Much Wenlock, for *Halane* dark brown, bred by J. J. E. Farquharson, Rock Farm, Station Road, Somerset; *s.* Alone Sir (vol. 21, p. 626 G.S.B.) *d.* Alice R. 498 *by* Glory Sutton.

Class 30.—Hunter Colts or Geldings, foaled in 1913. [12 entries.]

- 251 **I. (20).—SIR EDWARD STEPH**, Fen Court, Chertsey, for *Lohengrin*, brown colt; *s.* Cheveté d'Or (vol. 18, p. 102 G.S.B.) *d.* Brunette.
 252 **II. (210).—THE REV. K. T. MURRAY**, Bourton-on-the-Hill, Rectory, Marston-on-Marsh, for *Pasch Egg*, chestnut gelding; *s.* Thist' edown (Supp. 146) *d.* Diana 3rd 689 *by* Grand National.
 253 **III. (25).—GEORGE DICKINSON**, Cark Mills, Cark-in-Cartmel, Lancs., for *Cark Imp*, grey gelding, bred by Harold Grainger, Boston Spa; *s.* Gravel Medal (vol. 20, p. 597 G.S.B.) *d.* Lady Greylock 4698 *by* Blacklock.
 254 **IV. (24).—WILLIAM BUTLER**, Sycamore House, Hordley, Ellesmere, for *Mr. Cherry-stone*, chestnut colt; *s.* Cherrystone (vol. 17, p. 847 G.S.B.) *d.* Sybil 252 *by* Sash Inch (vol. 16, p. 680 G.S.B.).
 255 **R. N. & H. C.—W. NORI. SOAMES**, Bryn Estyn, Wrexham.

Class 31.—Hunter Geldings, foaled in 1912. [13 entries.]

- 256 **I. (20).—ARTHUR JOHN DOHMAN**, Grey Towers, Nanthorpe, Yorks., for *Golf Ball* (Supp. 201), bay; *s.* Tennis Ball (vol. 22, p. 735 G.S.B.) *d.* Lady 19th 1896.
 257 **II. (21).—C. W. WHITLEY**, Wainborough Place, Sandon, for *The Whip*, bay; *s.* Whipnade (vol. 20, p. 76 G.S.B.) *d.* Kitty 4th.
 258 **III. (25).—T. B. NEWTON**, Gilling Grange, Richmond, Yorks., for *Consol* (Supp. p. 281), black; *s.* Dubuque (vol. 18, p. 289 G.S.B.) *d.* Constance *by* Constant mo.
 259 **IV. (24).—LADY FULF**, Handland House, Bricket Wood, St. Albans, for *Mercury* (Supp. p. 266), chestnut; *s.* Red Sambo (vol. 20, p. 779 G.S.B.) *d.* Quicksilver *by* Aconite.
 260 **R. N. & H. C.—W. A. HOLMES**, The Grange, Lazenby, Yorks., for *Minaret*, Bay.
 H. C.—276, 278.

Class 32.—Hunter Geldings, foaled in 1911. [16 entries.]

- 259 **I. (20).—A. J. DORMAN**, Grey Towers, Nanthorpe, for *Racket* (Supp. 190), bay; *s.* Tennis Ball, *d.* Ladybird 9th 4896.
 260 **II. (210).—W. A. HOLMES**, The Grange, Lazenby, Eton, Yorks., for *Wilton Drummer* (Supp. 265), brown; *s.* Drummer Kelly (vol. 20, p. 89 G.S.B.) *d.* Lady Denness 4298 *by* La Dolphin.
 261 **III. (25).—GEORGE DICKINSON**, Cark Mills, Cark-in-Cartmel, for *Cark Example*, dark brown, bred by C. E. Ray, Birkby Hall, Cark-in-Cartmel; *s.* Balthus (vol. 18, p. 573 G.S.B.) *d.* Creole *by* Murrilton.
 262 **IV. (24).—F. B. WILKINSON**, Cavendish Lodge, Edwinstowe, Newark, for *Sporteman*, bay, bred by J. C. Toppin, Fenrith; *s.* General Waverley, *d.* Glenmorris *by* Morisco.
 263 **V. (24).—H. L. STORKEY**, Bailrigg, Lancaster, for *Broadwood* 2nd (Supp. 197), bay; *s.* Underbred (vol. 19, p. 518 G.S.B.) *d.* Lady Betty *by* Astrologer.
 264 **R. N. & H. C.—HARRY MASON**, Kynnersley Manor, Wellington, Salop, for *Darkie*, H. C.—289, 291, 304.

Class 33.—Hunter Fillies, foaled in 1913. [17 entries.]

- 265 **I. (20).—SIR MERRICK R. BURELL**, BT, Knepp Castle, West Grinstead, for *Hannah* 3rd 4518, dark bay; *s.* Hanover Square (vol. 20, p. 73 G.S.B.) *d.* Lucy Mary *by* Castlebrook 2.
 266 **II. (210).—W. A. HOLMES**, The Grange, Lazenby, Eton, Yorks., for *Radiance* 6018, brown; *s.* Drummer Kelly (vol. 20, p. 89 G.S.B.) *d.* Endentress.
 267 **III. (25).—F. B. WILKINSON**, Cavendish Lodge, Edwinstowe, Newark, for *The Lady*, bay, bred by W. B. Swallow, Wootton Lawn (Lancs.); *s.* Abler (vol. 20, p. 867 G.S.B.) *d.* Countess (Supp. vol. 21).

¹ £100 and £80 towards these Prizes were given by two Members of the R.A.S.E.

lviii Award of Live Stock Prizes at Shrewsbury, 1911.

(Unless otherwise stated, each prize animal named below was "bred by export.")

- 306 IV. (24).—R. W. COOPER, Wyld Court, Hampstead Norris, Berks., for *Red Sahib* (vol. 19, p. 779 G.S.B.), d. *Lady Flash*.
- 319 V. (24).—WILLIAM H. SMITH, Needwood House, Burton-on-Trent, for *Red Sahib* (vol. 19, p. 779 G.S.B.), d. *Beechnut* 2nd 3284.
- 306 R. N. & H. C.—CAPTAIN CLIVE BEHRENS, Swinton Grange, Malton, for *Lady Beatrice*. H. C.—307.

Class 34.—Hunter Fillies, foaled in 1912. [11 entries.]

- 322 I. (20, & R.N. for Champion).—F. B. WILKINSON, Cavendish Lodge, Edw. Newk., for *Bird of Freedom*, bay, bred by W. B. Swallow, Woolton Lawn, N. York; s. *Akbar* (vol. 20, p. 897 G.S.B.), d. *Repetition* 3679 by *Wales* (vol. 18, p. 854 G.S.B.).
- 323 II. (210).—FRANK J. BURDETT, Court Farm, Billingshurst, for *Winkle* 4543, bay, bred by *Hamover Square* (vol. 20, p. 745 G.S.B.), d. *Piper* 4542.
- 322 III. (25).—CAPTAIN CLIVE BEHRENS, Swinton Grange, Malton, for *Spiral* 4472, chestnut; s. *Berril* (vol. 18, p. 736 G.S.B.), d. *Selby* 3714 by *Selby* (vol. 15, p. 600 G.S.B.).
- 326 IV. (24).—COLONEL FRANK HENRY, Elmestree, Tetbury, Glos., for *Eiderdown*, black; s. *Thistledown* (Supp. 140), d. *Carmen* 2nd.
- 328 R. N. & H. C.—E. W. GOLDSWORTHY, Yaldham Manor, Kemsing, Kent, for *Beryl* 3rd. H. C.—330.

Class 35.—Hunter Fillies, foaled in 1911. [9 entries.]

- 338 I. (20, & Champion).—J. L. NICKISSON, Hinton Manor, Swindon, for *Red Squaw* 4113, chestnut; s. *Red Sahib* 75, d. *Sister Annie* 3723 by *Pantomime* (vol. 17, p. 649 G.S.B.).
- 335 II. (210).—THE MARCHIONESS OF DOWNSHIRE, Easthampstead Park, Wokingham, for *Bank Note* 4366, chestnut, bred by John A. Mullons, Barrow Hills, Longcross, Surrey; s. *Avonice* 167, d. *Tribe* 3836 by *Royal Meath* (vol. 17, p. 601 G.S.B.).
- 340 III. (25).—J. W. SPURGEON, Marlton-on-Dove, Derby, for *Hacklers Bay*, bay, bred by David Deuchar, Low Burton, Warkworth, Northumberland; s. *Castlehacket* (vol. 21, p. 389 G.S.B.), d. *Dusky Girl* 3062 by *Aborigine* (vol. 17).
- 341 R. N. & H. C.—H. L. STORREY, Bailrigg, Lancaster, for *Lady Beatrice*. H. C.—330.

Class 36.—Thoroughbred Mares, entered or eligible for entry in the General Stud Book, with Foals at foot, up to weight. [6 entries.]

- 344 I. (20, & S.P.).—JOHN A. MULLENS, Barrow Hills, Longcross, Surrey, for *Pective* 4493, dark bay, foaled in 1901, bred by A. Cameron; s. *Bushey Park* (vol. 17, p. 602 G.S.B.), d. *Magnet* by *Florina*. (Colt foal by *Dundreary*.)
- 342 II. (210, & S.P.).—THOMAS GREEN, The Bank, Pool Quay, Welshpool, for *Waggery*, chestnut, foaled in 1911, bred by T. O. Sullivan, Ribberry Stud, Savan; s. *The Wag* (vol. 20, p. 666 G.S.B.), d. *Marlton* by *Tarporley*. (Filly foal by *Le Blon*.)

Class 37.—Hunter Mares (Novice), foaled in or after 1906, with Foals at foot, up to from 12 to 14 stone. [4 entries.]

- 348 I. (20).—ARTHUR S. BOWLEY, Gilston Park, Harlow, for *Lady Somerset* 2nd 3507, chestnut, foaled in 1908 (vol. 21, p. 695 G.S.B.), bred by J. Clare, Hulham, Broad; s. *Perpetuity* (vol. 20, p. 518 G.S.B.), d. *Popsey* by *Pantomime* (vol. 17, p. 639 G.S.B.). (Foal by *Maryanna*.)
- 350 II. (210).—CHARLES J. C. HILL, Glentworth Hall, Lincoln, for *Miss Selby*, brown, foaled in 1909; s. *Chain Shot* (vol. 22, p. 907 G.S.B.). (Foal by *Woolwich Arsenal*.)
- 351 III. (25).—CAPTAIN EVELYN RICH, Little Ness House, near Shrewsbury, for *Adventure*, bay, foaled in 1906, breeder unknown. (Foal by *The Sun*.)

Class 38.—Hunter Mares (Novice), foaled in or after 1906, with Foals at foot, up to more than 14 stone. [2 entries.]

- 352 I. (20).—THE HON. HUGH MONEY-COUTTS, Stoodleigh Court, Tiverton, for *Gaiety* 4165, bay, foaled in 1906, bred by John Clemoes, St. Mabyn, Cornwall; s. *Newmarket* (vol. 18, p. 84 G.S.B.), d. *Rhoda* 4196 by *Dr. Syntax*. (Foal by *Rockaway* (vol. 20, p. 273 G.S.B.).)

¹ Champion Gold Medal given by the Hunters' Improvement and National Light Horse Breeding Society for the best Filly not exceeding three years old, in Classes 33-35, which is registered in the Hunter Stud Book, or whose entry was tendered within a month of the Award.

² Two Special Prizes of £5 given for the best Colt and the best Filly Foals.

Award of Live Stock Prizes at Shrewsbury, 1914. lix

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

Class 39.—Hunter Mares with Foals at foot, up to from 12 to 14 stone. [12 entries.]

- 34 I. (£20, & R. N. for Champion.)—ARTHUR S. BOWLBY, Gilston Park, Harlow, for First Choice 2nd 3842 brown, foaled in 1903, bred by Mr. Stacey, North Woad, Essex; s. Chosen (vol. 18, p. 550 G.S.B.), d. Mare 3965 by Asotic 2nd. (Foal by Mayowna (vol. 21, p. 695 G.S.B.).)
- 35 II. (£10.)—FRANK B. WILKINSON, Cavendish Lodge, Edwinstowe, Newark, for Shebeen, chestnut, foaled in 1904, bred by J. G. Muir, Brigstock, Thrapston, Leicestershire, vol. 18, p. 611 G.S.B.), d. Heather by St. Jerome. (Foal by Squadron Leader.)
- 36 III. (£5.)—MORDEN RIGG, High House, Kendal, for Courtmaid 1882, chestnut, foaled in 1898, bred by G. Ziegler, Landican, Woodchurch, Birkenhead; s. Newcourt (vol. 16, p. 371 G.S.B.), d. Maid of Tanatt 805 by Stockford (vol. 15, p. 470 G.S.B.). (Foal by The Tower (vol. 21, p. 626 G.S.B.).)
- 37 IV. (£4.)—FRANCIS SAMUELSON, Breckenbrough Hall, Thirsk, for Mullingar Junior 3294, chestnut, foaled in 1897; s. Trundle Hill (vol. 18, p. 288 G.S.B.), d. Mullingar by Heart of Oak. (Foal by Drummer Kelly (vol. 21, p. 89 G.S.B.).)
- 38 R. N. & H. C.—WILLIAM H. SHIERS, Needwood House, Burton-on-Trent, for Bench-nut 2nd.

Class 40.—Hunter Mares with Foals at foot, up to more than 14 stone. [7 entries.]

- 39 I. (£20, & Champion.)—SIR MERRICK R. BURRELL, BT., Knepp Castle, West Grinstead, for Lovey Mary 4247, dark brown, foaled in 1900, bred by the Earl of Lonsdale, Barleythorpe, Oakham; s. Castleneck 2, d. Sister Mary 3405 by Brown Prince (vol. 14, p. 601 G.S.B.). (Foal by The Best 147.)
- 40 II. (£10.)—MRS. H. D. GREENE, Grove, Craven Arms, for Stormy Petrel 2nd 4186, brown, foaled in 1905, bred by R. G. Carden, Fishmerne, Templecombe, Wiltshire; s. Faute de Mieux (vol. 18, p. 537 G.S.B.), d. Wild Duck 3031 by King Otto (vol. 16, p. 769 G.S.B.). (Foal by Benvenuto (vol. 20, p. 57 G.S.B.).)
- 41 III. (£5.)—WILLIAM DENSON, Picton Hall, Chester, for Playmate 4th 4557, bay, foaled in 1902, bred by LARRY FLOOD, Eddestown, Naas, Co. Kildare; s. Bartzian (vol. 16, p. 233 G.S.B.), d. by Lyric (vol. 18, p. 554 G.S.B.). (Foal by Just Cause (vol. 20, p. 259 G.S.B.).)
- 42 R. N. & H. C.—MAJOR H. G. HENDERSON, M.P., Kitemore Faringdon, for Hall Mark, C.—372.

Class 41.—Hunter Colt Foals, the produce of Mares entered in Classes 37 to 40. [11 entries.]

- 43 I. (£10.)—SIR MERRICK R. BURRELL, BT., Knepp Castle, West Grinstead, for dark brown, foaled May 14; s. The Best 147, d. Lovey Mary 4247 by Castleneck 2.
- 44 II. (£5.)—MRS. H. D. GREENE, Grove, Craven Arms, for bay, foaled May 8; s. Benvenuto (vol. 20, p. 57 G.S.B.), d. Stormy Petrel 2nd 4186 by Faute de Mieux (vol. 18, p. 537 G.S.B.).
- 45 III. (£3.)—F. B. WILKINSON, Cavendish Lodge, Edwinstowe, Newark, for chestnut, foaled April 30; s. Squadron Leader (vol. 17, p. 607 G.S.B.), d. Shebeen by Borsac.
- 46 R. N. & H. C.—WILLIAM H. SHIERS, Needwood House, Burton-on-Trent, for chestnut.

Class 42.—Hunter Filly Foals, the produce of Mares entered in Classes 37 to 40. [7 entries.]

- 47 I. (£10.)—WILLIAM DENSON, Picton Hall, Chester, for bay, foaled April 15; s. Just Cause (vol. 20, p. 259 G.S.B.), d. Playmate 4th 4557 by Bartzian (vol. 16, p. 233 G.S.B.).
- 48 II. (£5.)—ARTHUR S. BOWLBY, Gilston Park, Harlow, for Primula Juha, brown, foaled March 3; s. Mayowna (vol. 21, p. 695 G.S.B.), d. First Choice 2nd 3842 by Chosen (vol. 18, p. 550 G.S.B.).
- 49 III. (£3.)—ARTHUR S. BOWLBY, for Lady May, chestnut, foaled May 6; s. Mayowna (vol. 21, p. 695 G.S.B.), d. Lady Somerset 2nd 3517 by Perpetuity (vol. 20, p. 518 G.S.B.).
- 50 R. N. & H. C.—DAVID DAVIES, M.P., Bronceiron, Llandnam, Mont., for Red Lily.

Polo and Riding Ponies.²

Class 43.—Polo and Riding Pony Colts or geldings, foaled in 1913. [5 entries.]

- 51 I. (£10.)—SIR JOHN BARKER, BT., The Grange, Bishop's Cleeve, for Cherry (Supp. 1913), chestnut colt; s. Right Forard 568, d. Redstone 1766.

¹ Champion Gold Medal given by the Hunters' Improvement and National Light Horse Breeding Society for the best Mare, four years and upwards, in Classes 37-40, which is registered in the Hunter Stud Book, or whose entry was tendered within a month of the Award.

² £30 towards these Prizes were given by the National Pony Society, and £30 by three Members of the R.A.S.E.

lx *Award of Live Stock Prizes at Shrewsbury, 1911.*

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

- 392 II. (45.)—THE HON. MRS. DRURY-LOWE, Locko Park, Derby, for *Wharfedale* (Supp. 1913), bay colt; s. Ipswich, d. Nora Creina 2322 by Annagor.
 393 III. (43.)—SIR WALTER GILBEY, BT., Elsenham Hall, Essex, for *Slashing Archer* (Supp. 1914), bay colt; s. Arthur D. 593, d. Sparkling Crocus (Supp. 1911), d. *Matchmaker* 22.

Class 44.—Polo and Riding Pony Colts or Geldings, foaled in 1911. [4 entries.]

- 398 I. (410.)—MRS. E. MORANT, Brokenhurst Park, Hants, for *Suchard*, brown gelding, Stron Ard (vol. 21, p. 32 G.S.B.), d. Susan 3rd 2286 by Hawkeye 578.
 396 II. (45.)—SIR JOHN BARKER, BT., The Grange, Bishop's Stortford, for *Derry* (Supp. 1913), bay colt; s. Outhrae 447, d. Meath.
 397 III. (43.)—GEORGE DICKINSON, Cark Mills, Cark-in-Cartmel, for *Cark Trusthart*, dark brown colt, bred by Dickinson Brothers, Cark Mills; s. Red Heart, d. *Blackmaid* by Active Hampton.
 399 R. N. & H. C. CHARLES WILLIAMS, Manor House, Little Rollright, Cheshire, Norton.

Class 45.—Polo and Riding Pony Stallions, foaled in or before 1911, and exceeding 15 hands. [4 entries.]

- 401 I. (415, & Champion.)—G. NORRIS MIDWOOD, The Grange, North Rode, Compton, for *Victory* 2nd 683, brown, foaled in 1906, bred by Sir J. Robinson; s. The Victors, d. *Guided by Cyphers*.
 402 II. (410, & R. N. for Champion.)—STEPHEN MUMFORD, Stud Farm, Morden, Morrell, Warwick, for *Spanish Hero* 372, dark brown, foaled in 1898, bred by J. W. Mowenthal, Stony Stratford; s. Kilwarlin, d. Spanish Maiden by Merry Hampton.
 400 III. (45.)—SIR JOHN BARKER, BT., The Grange, Bishop's Stortford, for *Arthur D.* 593, bay, foal-d in 1908, bred by R. Bouterill; s. *Pride*, d. *Maquay* by Florentine.
 403 R. N. & H. C.—STEPHEN MUMFORD, for *Swa Cloch*.

Class 46.—Polo and Riding Pony Fillies, foaled in 1913. [2 entries.]

- 404 I. (410.)—SIR JOHN BARKER, BT., The Grange, Bishop's Stortford, for *Wrenbury Pride*, bay; s. Right Forard 368, d. Wrenbury by Dale.

Class 47.—Polo and Riding Pony Fillies, foaled in 1912. [2 entries.]

- 406 I. (410.)—SIR JOHN BARKER, BT., The Grange, Bishop's Stortford, for *Lady Pixie* (Supp. 1913), bay; s. Outhrae 447, d. Pixie 1615 by Marmaton.
 408 II. (45.)—MISS WALFORD, Haring, Hertford Heath, Herts., for *Carette* (Supp. 1912), bay, bred by Miss Curtis, Fairshot Court, St. Albans; s. Right Forard 368, d. *Caro*.

Class 48.—Polo and Riding Pony Fillies or Geldings, foaled in 1911. [5 entries.]

- 410 I. (410.)—LADY DALMONT, The Cottage, Mentmore, Leighton Buzzard, for *Forward Boy*, chestnut gelding, bred by Tresham Gilbey, Whitehall, Bishop's Stortford; s. Right Forard 368, d. Good Girl.
 409 II. (45.)—SIR JOHN BARKER, BT., The Grange, Bishop's Stortford, for *Spanish Prince* 372, brown gelding, bred by H. S. Loder, 49 Cadogan Place, London, S.W.; s. Spanish Hero 372, d. Wrenbury 2321 by The Dale.
 412 III. (43.)—SIR ROBERT GREEN-PRICE, BT., The Bungalow, Bladford, Llangwyllog, Radnor, for *Coronation* (Supp. 1911-1912), brown gelding, bred by J. E. Willis, Fleming, Stoneham Park, Eastleigh; s. Rajah 417, d. Cora 2nd 2018.
 413 R. N. & H. C.—MISS WALFORD, Haring, Hertford Heath, Herts., for *Quicksand*.

Class 49.—Polo and Riding Pony Mares, foaled in or after 1908, with foals at foot, not exceeding 14·2 hands. [3 entries.]

- 414 I. (415, R. N. for Champion, & Champion.)—SIR JOHN BARKER, BT., The Grange, Bishop's Stortford, for *Violet* 2nd 2402, chestnut, foaled in 1908; s. Right Forard 368, d. Jew 681 by Pearl Diver. [Foal by Bowden (Supp. 1913).]

Class 50.—Polo and Riding Pony Mares, foaled in or before 1907, with foals at foot, not exceeding 14·2 hands. [1 entry.]

- 410 I. (415, & Champion, & R. N. for Champion.)—G. NORRIS MIDWOOD, The Grange, North Rode, Compton, for *Lady Primrose* 2323, chestnut, foaled in 1905. [Foal by Chief Butler (Supp. 1913).]

¹ Champion Gold Medal given by the National Pony Society for the best Stallion or Colt in Classes 43-45.

² Champion Gold Medal given by the National Pony Society for the best Mare or Filly in Classes 46-50.

³ Bronze Medal given by the National Pony Society for the best Foal in Classes 47 and 50, entered or eligible for entry in the Supplement to the National Pony Stud Book.

Award of Live Stock Prizes at Shrewsbury, 1914. [xi]

(Unless otherwise stated, each prize animal named below was "bred by exhibit.")

Cleveland Bays or Coach Horses.

Class 51.—Cleveland Bay or Coaching Stallions, any age. [6 entries.]

- 424 I. (£15).—JOHN LETT, Cleveland Stud Farm, Rillington, York, for **Rillington Victor** 2536 (Coaching), foaled in 1910, bred by W. Wood, Hildesley; s. Breaston Prince 1451, d. Queen's Rocket 948 *by* Prince of the Dales.
- 425 II. (£10).—HIS MAJESTY THE KING, Buckingham Palace, London, S.W., for **Tantillus** 3544 (Coaching), foaled in 1911, bred by Mr. Coates, Pickering; s. Breaston Prince 2451, d. Violet 1199 *by* Lord Chief Justice 1241.
- 426 III. (£5).—J. W. LETT, Scagglethorpe Manor, Malton, for **Rillington Progress** 1725 (Cleveland Bay), foaled in 1911, bred by J. H. Tyreman, Hinderwell, Yorks; s. Sultburn Favourite 1630, d. Hinderwell Beauty 1329 *by* Prince George 235.
- 427 B. N. & H. C.—GEORGE ELDERS, Tott House Farm, Aislaby, Sleights, Yorks., for **Aislaby Lad**.

Class 52.—Cleveland Bay or Coaching Mares, with Foals at foot.
[4 entries.]

- 428 I. (£15).—GEORGE SCORY, Beadlam Grange, Newton, Yorks., for **Beadlam Jane** (Cleveland Bay), foaled in 1908; s. Potts Hutton 1663, d. Beadlam Daisy 1906 *by* Beadlamite 2195. [Foal *by* King George 2th 2538.]
- 429 II. (£10).—JOHN LETT, Cleveland Stud Farm, Rillington, York, for Coaching mare, foaled in 1906; s. Special Delight 2290, d. Herome 971 *by* Lucky Hero 2474. [Foal *by* Rillington Victor 2536.]

Hackneys.¹

Class 53.—Hackney Stallions, foaled in 1913. [6 entries.]

- 431 I. (£15).—HENRY B. BRANDT, Capenor, Nuffield, Surrey, for **Capenor Mangalar**, black; s. Mathias A1 10751, d. Madame Pompadour 2005 *by* Polonus 4931.
- 432 II. (£10).—R. A. DE MANCHA, Waterside Stud, Frognore, St. Albans, for chestnut; s. Polonus 4931, d. Bashful Kate 1944 *by* Rosador 1961.
- 433 III. (£5).—H. WATLEY, Primley, Panton, for **Primley Fanfare**, bay; s. Antonius 10559, d. Emelie 19051 *by* Briarroot 8757.
- 434 B. N. & H. C.—HENRY GILDING, Gateacre, near Liverpool, for **Axholme Premier**. H.C.—434.

Class 54.—Hackney Stallions, foaled in 1912. [7 entries.]

- 435 I. (£15, & Champion.²)—R. A. DE MANCHA, Waterside Stud, Frognore, St. Albans, for **Ver Vigorous** 12528, chestnut; s. Polonus 4931, d. Maid Kate 5822 *by* Rufus 1345.
- 436 II. (£10).—GEORGE A. COBB, Woodside, Garston, Meris, for **Garston Leopard** 12566, roan chestnut; s. Leopard 9763, d. Torrington Blue Stocking 1861 *by* Cuckoo 2205.
- 437 III. (£5).—JOHN BEAL, Cowham Manor, Sledmere, Malton, for **Blanch King Edward** 12315, chestnut; s. King of the East 1625, d. Blanch Gay 1629 *by* Hammanby Duke 1877.

Class 55.—Hackney Stallions, foaled in or before 1911. [4 entries.]

- 441 I. (£15, & Champion.²)—WALTER W. RYCKOFF, Drake Hill Hackney Stud, Bingley, Yorks., for **Hopwood King** 11891, chestnut, foaled in 1910, bred by Sir Lees Knowles, Bt., C.V.O., Pentlbury, Manchester; s. Almond Orlinton 9578, d. Ryburn Lucinda 17036 *by* Ganymede 2076.
- 442 II. (£10).—WALTER W. RYCKOFF, for **Admiral Cluquet** 11667, chestnut, foaled in 1910, bred by W. B. Lysaght, Castleford, Chap-stow; s. Leopard 9763, d. Hopwood Clematis 13878 *by* Rosador 1961.
- 443 III. (£5).—WALTER BRIGGS, Linden Hall, Horwack, Carnforth, for **King Augustus** 12094, chestnut, foaled in 1911, bred by Richard Ford, Garton, Driffield; s. King of the East 16725, d. Welcome Home 19619 *by* Copper King 7761.

Class 56.—Hackney Fillies, foaled in 1913. [5 entries.]

- 444 I. (£15).—ERNEST BEWLEY, Darum, Bathurst, co. Dublin, for **Beckingham Lady Leinster**, chestnut, bred by Robert Surtees, The Lanes, Beckingham, Gainsborough; s. Beckingham Squire 870, d. M. de Hildesley 1205 *by* Droubury 4721.
- 445 II. (£10).—SIR WALTER GILBEY, Bt., Elsenham Hall, Essex, for **Slashing Dorothy**, chestnut; s. Antonius 10692, d. Flash Dorothy 19087 *by* Forest Star 2445.
- 446 III. (£5).—JOHN MARFACKE, Colborne Park, Newton-le-Willows, for **Pious Princess**, chestnut; s. King's Proctor 11102, d. Pious Bonds 1613 *by* Polonus 4931.
- 447 B. N. & H. C.—J. L. TILLOTSON, Rendova Stud, Great Scaughall, Chester.

¹ £30 towards these Prizes were given through the Hackney Horse Society.
² Champion Gold Medal given by the Hackney Horse Society for the best Stallion in Classes 53-56.

lxii *Award of Live Stock Prizes at Shrewsbury, 1911.*

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

Class 57.—Hackney Fillies, foaled in 1912. [4 entries.]

- 457 I. (£15).—WALTER BRIGGS, Linden Hall, Borwick, Carnforth, for *Albion Lady* Borwick 2261, chestnut; s. Beekingham Squire 8070, d. Lady Millie 11153 by 2799.
 458 II. (£10).—JOHN MAKEAGUE, Golborne Park, Newton-le-Willows, for *Township Ailetta* 23375, chestnut, bred by Robert Whitworth, Lendeborough Stud, 1898; Weighton; s. Polonus 4931, d. Black Pearl 10704 by Fireway of Callis Wood 1898.
 459 III. (£5).—HENRY GILDING, Gateacre, Liverpool, for *Alzhomes Princess* 11153, chestnut, bred by P. I. Batchelor, Hopwood, Alvechurch; s. Admiral Crescent 11153, d. Ryburn Lucinda 17696 by Ganymede 2076.
 460 E. N. & H. C.—HENRY B. BRANDT, Capenor, Nutfield, Surrey, for Capenor Alder.

Class 58.—Hackney Fillies, foaled in 1911. [5 entries.]

- 460 I. (£15, & Champion).—ERNEST BEWLEY, Danum, Rathgar, Co. Dublin, for *Beckingham Lady Gracious* 22383, chestnut, bred by Robert Surfleet, The Lodge, Beckingham, Gainsborough; s. Beckingham Squire 8070, d. Miss Helmsley 12753 by Danebury 4724.
 461 II. (£10).—SIR WALTER GILBEY, BT., Elsenham Hall, Essex, for *Pomping Polly* 22775, chestnut; s. Antonius 10559, d. Polly Olga 18499 by Roadster 4964.
 462 III. (£5).—THOMAS SMITH, Shirley Stud, Hall Green, Birmingham, for *Shirley Summer Rose* 22811, bay; s. Beckingham Squire 8070, d. Last Rose of Summer 11153 by Lord Derby 2nd 417.
 463 E. N. & H. C.—JOHN MAKEAGUE, Golborne Park, Newton-le-Willows, for Lady Arthington.

Class 59.—Hackney Mares, with Foals at foot, over 14, and not exceeding 15·2 hands. [4 entries.]

- 466 I. (£15, & E. N. for Champion).—HENRY GILDING, Gateacre, Liverpool, for *Cudham Marjorie* 23612, chestnut, foaled in 1907, bred by Robert Whitworth, Lendeborough Stud, Market Weighton; s. Polonus 4931, d. Minnie 7119 by Conscience 165. [Foal by District Surge 11015].
 465 II. (£10).—HENRY B. BRANDT, Capenor, Nutfield, Surrey, for *Medalia* 19337, chestnut, foaled in 1904, bred by H. Livesey, Rotherfield, Su-sex; s. Medway 8240, d. Gay Ophelia, 11844 by Polonus 4931. [Foal by King of the East 10725].
 467 III. (£5).—ISAAC RICH, Westcourt, Victoria Road, Alexandra Park, London, N. for *Abdullah* 21235, chestnut, foaled in 1909; s. Leopard 6733, d. Two Dozen 17829 by Garston Duke of Connaught 3009. [Foal by Antonius 10559].

Class 60.—Hackney Mares, with Foals at foot, over 15·2 hands. [8 entries.]

- 470 I. (£15).—ERNEST BEWLEY, Danum, Rathgar, Co. Dublin, for *Sprightly Clara* 21941, chestnut, foaled in 1908, bred by Sir Walter Gilbey, BT., Elsenham Hall, Essex; s. Royal Danegelt 5785, d. Bonnie Clara 6419 by Connaught 1463. [Foal by Polonus 4931].
 472 II. (£10).—SIR WALTER GILBEY, BT., Elsenham Hall, Essex, for *Gallant Girl* 15063, chestnut, foaled in 1901; s. Revival 7236, d. Titania 7502 by Gallant Sportsman 2955. [Foal by Antonius 10559].
 474 III. (£5).—SIR LEES KNOWLES, BT., C.V.O., Westwood, Pendlebury, Lancs., for *Knowles Halma* 13833, black chestnut, foaled in 1899, bred by R. Simpson, Ashfield, Market Weighton; s. His Majesty 2513, d. Lady Buckrose 2875 by Pioneer 1068. [Foal by Hopwood Victory 5261].
 471 E. N. & H. C.—GEORGE A. COBB, Woodside, Garston, Herts., for *Hopwood Madge*.

Class 61.—Hackney Foals, the produce of Mares in Classes 59 or 60. [9 entries.]

- 485 I. (£10).—G. A. SMITH, East View, Oakington, Combs, for chestnut filly, foaled March 12; s. Antonius 10559, d. Ring o' Bell 12235 by Goldfinder 6th 1701.
 480 II. (£5).—GEORGE A. COBB, Woodside, Garston, Herts., for chestnut colt, foaled April 28; s. King's Proctor 11102, d. Hopwood Madge 22073 by Copmanthorpe Performer 9670.
 481 III. (£3).—SIR WALTER GILBEY, BT., Elsenham Hall, Essex, for chestnut filly, foaled March 31; s. Antonius 10559, d. Gallant Girl 15063 by Revival 7236.
 478 E. N. & H. C.—ERNEST BEWLEY, Danum, Rathgar, Co. Dublin.

Hackney Ponies.

Class 62.—Hackney Pony Stallions, foaled in or before 1911, not exceeding 14 hands. [7 entries.]

- 489 I. (£10).—A. C. KING, Brishfield Manor, Romsey, for *Harviestoun Wattie* 11463, dun, foaled in 1904, bred by J. E. Kerr, Harviestoun Castle, Dollar; s. Sir Arthur 10425, d. Little Warren 18366 by Julius Caesar 2nd 5666.

¹ Champion Gold Medal given by the Hackney Horse Society for the best Mare or Filly in Classes 54-60.

Award of Live Stock Prizes at Shrewsbury, 1914. 1811

(Unless otherwise stated, each prize animal named below was "bred by exhibitor.")

- 427 II. (25.)—JAMES HALES, Rougham Pony Stud, Bury St. Edmunds, for **Son of Fire** 3023, bay, foaled in 1908, bred by A. S. Day, Berkeley Stud, Cirencester, s. *Firefly* 740, Berkeley Dreamer 1820, by Berkeley Model 3663.
 428 III. (23.)—HENRY GILDING, Gateacre, Liverpool, for **Tissington Classic** 3841, bay, foaled in 1907, bred by Sir Gilbert Greenall, Bt., Walton Hall, Warrington, s. Berkeley Claudius 8872, d. Georgina 5th 8921 by Sir George 778.
 429 R. N. & H. C.—MRS. J. VAN NIEVELT VAN HATTUM, Huize Hoogwilde, Wassenaar, Holland, for **Holland Horan Bromus**.

Class 63.—Hackney Pony Colts, Fillies, or Geldings, foaled in 1912, not exceeding 13·2 hands. [6 entries.]

- 423 I. (210.)—J. I. ELLIOTT, Parkside, Knockholt, Kent, for **Knockholt Little Spark** 12121, bay colt; s. Tissington Gideon 9012, d. Shunfield Lady Horace 1164 by Sir Horace 3402.
 424 II. (25.)—MISS LANGWORTHY, Hendon Manor, Helyport, Maidenhead, for **Glenavon Torchbearer** 12375, bay colt, bred by Enoch Glen, Fallside Hackney Stud, Bathgate, s. Torchfire 9472, d. Berkeley Sylph 15615 by Golden Rule 6280.
 425 III. (23.)—JAMES HALES, Rougham Pony Stud, Bury St. Edmunds, for **Rougham Vandyke**, bay colt; s. Tissington Vandyke 11259, d. Berkeley Lancer 1376, by Berkeley Model 3663.

- 426 R. N. & H. C.—WILLIAM MASON, Huntington Hall, Chester, for **Reginald**.

Class 64.—Hackney Pony Fillies or Geldings, foaled in 1911, not exceeding 13·3 hands. [6 entries.]

- 392 I. (210.)—ALBERT HUMPHREY, Morton, Gainsborough, for **Glenavon Ideal** 2702, bay filly, bred by Enoch Glen, Fallside Hackney Stud, Bathgate, s. Torchfire 9472, d. Mansfield Queen 30075 by His Majesty 243.
 393 II. (25.)—JAMES HALES, Rougham Pony Stud, Bury St. Edmunds, for **Rougham Lady Ruby**, bay filly; s. Son of Fire 3023, d. Rougham Ruby by Drakeford Goldie 8826.
 394 III. (23.)—FREDERICK HARDWICK, The Hollies Farm, Over Peover, Nantwich, for **Peover Fire Spark** 2757, bay filly; s. Talke Fire King 9332, d. Lark Hardwick 20803 by Sir Horace 3402.

- 424 R. N. & H. C.—JOSHUA BALL, Southworth Hall, Warrington, for **Earl Southworth**.

Class 65.—Hackney Pony Mares, with Foals at foot, not exceeding 14 hands. [5 entries.]

- 395 I. (210.)—W. WAINWRIGHT, The Pony Stud, Talke, Stoke-on-Trent, for **Talke Fire Queen** 20773, bay, foaled in 1907; s. Fire Boy 7440, s. Royal Maid 1399, by Dane Royal 5577. [Foal by Talke Fire King 9332.]
 396 II. (25.)—JOHN JONES & SONS, Dinorlh Hall Pony Stud, Colwyn Bay, for **Merry Hope** 13762, brown, foaled in 1898, bred by Sir Gilbert Greenall, Bt., Walton Hall, Warrington; s. Sir Horace 3402, d. Merry Polly 8250 by Merry Sunshine 1233. [Foal by Trille Swell 12390.]
 397 III. (23.)—ROBERT BRYDON, The Dene, Seaham Harbour, for **Seaham Mystery** 18172, brown, foaled in 1904, bred by Seaham Harbour Stud Co., Seaham Harbour; s. Little Wonder 2nd 1810, d. Mischief 247 by Denmark 17. [Foal by Fire Boy 1104.]
 398 R. N. & H. C.—P. MOORE, Carlton Hackney Stud, Egrement, Cumberland, for **Ullocoats Bell**.

Shetland Ponies.

Class 66.—Shetland Pony Stallions, foaled in or before 1911, not exceeding 10½ hands. [13 entries.]

- 329 I. (210, & Champion, 1)—WILLIAM MUNGALL, Trans-y, Dunfermline, for **Scilwood of Transy** 618, black, foaled in 1904; s. Sawweed 333, d. Stella 1632 by Theo 83.
 319 II. (25, & R. N. for Champion, 1)—R. W. R. MAKENHILL, Earlshead, Leith, for **Bessbrook of Earlshead** 397, brown, foaled in 1901; s. Manton in Parvo 28, d. Bess of Earlshead 1860 by Durnholm 198.
 313 III. (23.)—CHARLES DOWGLAS, Auchloch, Leamington, for **Blackbird of Auchloch**, black, foaled in 1909; s. Thor 83, d. Belinda of Auchloch 1823 by Sargent 137, H. C. 512.
 C. 510, 514, 515, 516, 517.

Class 67.—Shetland Pony Mares, with Foals at foot, not exceeding 10½ hands. [11 entries.]

- 332 I. (210.)—WILLIAM MUNGALL, Trans-y, Dunfermline, for **Thorland** 1240, black, foaled in 1902, bred by the Dowager Marchioness of Louthpox, Hopetoun; s. Mutton in Parvo 28, d. Theo 1515 by Douglas 147. [Foal by Sawweed 333.]

1 Champion Silver Medal given by the Shetland Pony Stud Book Society for the best Animal in Classes 66 and 67.

lxiv Award of Live Stock Prizes at Shrewsbury, 1914.

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

- 529 II. (25).—THE LADIES E. AND D. HOPE, South Park, Bodiam, Sussex, for *Ballet the Ball* 2331, black brown, foaled in 1904; s. Oman 331, d. Bretta 811 by *Champion* (Foal by Bumble Bee 479.)
- 523 III. (23).—MRS. CHOLMELEY, Kingsdown House, Swindon, for *Banash* 2304, bay, foaled in 1905, bred by the Ladies E. and D. Hope, South Park, Bodiam, Sussex; s. Haldor 270, d. Bretta 811 by Odin 32. [Foal by Wynyard Flash 632.]
- 528 R. N. & H. C.—MRS. HORART, West Cliff Hall, Hythe, Southampton, for *Energy*.

Welsh Cobs.

Class 68.—*Welsh Cob Stallions, foaled in or before 1911, not exceeding 14½ hands.* [7 entries.]

- 536 I. (210, & Champion.)—J. MARSHALL DUGDALE, Llwyn Stud Farm, Llanyfyllin, Mont., for *Temptation* 527, chestnut, foaled in 1908, bred by J. Thomas, Pen-y-fordol, Glanrhyll; s. Total 320, d. Lady Goldyke 1601 by Klondyke 12.
- 534 II. (24, & R. N. for Champion.)—WILLIAM DAVIES, Pengraig Hall, Bangor-on-Dea, for *Crugging Jack* 528, dark chestnut, foaled in 1908, bred by David Jones, Rhyddrol, Lledrod, Aberystwyth; s. King Jack 2nd 20, d. Welsh Flower 355 by Cardigan Flyer.
- 539 III. (23).—EVAN JONES, Manoravon, Llandilo, for *Towyvale Sensation* 704, brown, foaled in 1910; s. Cerdin Briton 338, d. Ping 2401 by Odwyn Comet.
- 535 R. N. & H. C.—J. MARSHALL DUGDALE, for *Llwyn Idloes Flyer*. H. C.—537.

Class 69.—*Welsh Cob Brood Mares, foaled in or before 1911, with Foals at foot, not exceeding 14½ hands.* [3 entries.]

- 543 I. (210, & Champion.)—J. MARSHALL DUGDALE, Llwyn Stud Farm, Llanyfyllin, Mont., for *Lyssun* 1112 4763, bay, foaled in 1903, bred by H. Evans, Esguan Hall, Towy; s. Idloes Flyer 537, d. Queen of the Valley 319 by Towy Jack (Foal by King Flyer 355.)
- 542 II. (24, & R. N. for Champion.)—J. MARSHALL DUGDALE, for *Llwyn Flashlight* 2nd 5855, chestnut, foaled in 1906, bred by R. Jones, Croeslllyn, Llanidloes; s. Idloes Flyer 537. [Foal by Llwyn Gambler 626.]

Welsh Mountain Ponies.³

Class 70.—*Welsh Mountain Pony Stallions, foaled in 1911, not exceeding 11½ hands, or 1912, not exceeding 11½ hands.* [10 entries.]

- 547 I. (210).—MRS. H. D. GREENE, Grove, Craven Arms, for *Grove King Cole* 2nd 585, grey, foaled in 1911; s. Grove King Cole 197, d. Biedda Tell Tale 843 by Tyrant 177.
- 550 II. (23).—EVAN JONES, Manoravon, Llandilo, for *Puss in Boots*, bay, foaled in 1911; s. Greylight 80, d. Pussy.
- 548 III. (23).—MISS E. C. V. HUGHES, Bryn Hawddgar, Llanarthney, for *Hawddgar Mountain Chief*, grey, foaled in 1911; s. Dyoll Starlight 4, d. Hawddgar Mountain Marvel 2540.
- 552 R. N. & H. C.—THE DUCHESS OF NEWCASTLE, Hardwick Grange, Clumber Park, Worksop, for *Hardwick Ceol*. H. C.—544, 551, 553.

Class 71.—*Welsh Mountain Pony Stallions (Novice), foaled in or before 1910, not having won a class prize of the value of £4 previous to May 20, 1914, not exceeding 12 hands.* [8 entries.]

- 558 I. (24, & R. N. for Champion.)—THE DUCHESS OF NEWCASTLE, Hardwick Grange, Clumber Park, Worksop, for *Grove Gunpowder* 351, grey, foaled in 1908, bred by Mrs. H. D. Greene, Grove, Craven Arms; s. Grove Ballistite 200, d. Babailien Ruby 1207.
- 557 II. (23).—J. LLOYD MORGAN, Rhwifelen, Abergwili, for *Towy Model Starlight*, silver grey, foaled in 1910; s. Dyoll Starlight 4, d. Lady Greylight 2016 by Grey-light 80.
- 555 III. (22).—J. MARSHALL DUGDALE, Llwyn Stud Farm, Llanyfyllin, Mont., for *Wern Starlight* 588, black, foaled in 1906, bred by R. M. Greaves, Wern, Portmadoc; s. Dyoll Starlight 4, d. Wern Gem 267 by Hunter 2nd 11.

¹ Silver Medal given by the Welsh Pony and Cob Society for the best Stallion in Class 68, entered or accepted for entry in the Welsh Pony Stud Book.

² Silver Medal given by the Welsh Pony and Cob Society for the best Mare in Class 69, entered or accepted for entry in the Welsh Pony Stud Book.

³ £25 towards the Prizes for Welsh Cobs and Welsh Mountain Ponies were given by the Welsh Pony and Cob Society, and £21 by the Shrewsbury Local Committee.

⁴ Silver Medal given by the Welsh Pony and Cob Society for the best Stallion or Colt in Classes 70-73, entered or accepted for entry in the Welsh Pony Stud Book.

Award of Live Stock Prizes at Shrewsbury, 1914. lxx

[Unless otherwise stated, each prize animal named below was foaled by exhibition.]

- 561 **R. N. & H. C.**—**C. COLTMAN ROGERS**, Stange Park, Brampton Bryan, for **Stange Halley's Comet**.
H. C.—554, 559, 560.

Class 72.—*Welsh Mountain Pony Stallions, foaled in or before 1910, not exceeding 12 hands.* [6 entries.]

- 562 I. (**10. & Champion.**)—**MRS. H. D. GREENE**, Grove, Craven Arms, for **Grove Archlight** 443, grey, foaled in 1908, bred by Evan Jones, Caerwladros, South Wales; Greylight 89, d. Welros Gem 318 by Eiddwen Flyer 2nd.
563 II. (**25.**)—**EVAN JONES**, Manoravon, Llandilo, for **Towyvale Freckles**, grey, foaled in 1903, bred by Mr. Evans, Porth Hotel, Llandussall; s. Cyfra Ffôn, d. Ffôn of Greylight by Greylight.
564 III. (**23.**)—**H. MERRIC LLOYD**, Delfryn, Llanwrda, for **Dyoll Starlight** 4, grey, foaled in 1894; s. Dyoll Glasalt 438, d. Dyoll Moonlight 808.
565 **R. N. & H. C.**—**W. ARTHUR PUGH**, Gwyndy, Llanfyllin, Mont., for **Gwyndy Comet**.
H. C.—563, 567.

Class 73.—*Welsh Mountain Pony Colts, Fillies, or Geldings, foaled in 1913 not exceeding 11 hands.* [8 entries.]

- 566 I. (**45, & R. N. for Champion.**)—**J. MARSHALL DUDALE**, Llwyn Sudd Farm, Llanfyllin, Mont., for **Llwyn Moonshine**, dark chestnut filly; s. Llwyn M-construck 438, d. Lady Lightfoot 392 by Gwyndy Cyfro 134.
567 II. (**43.**)—**MRS. H. D. GREENE**, Grove, Craven Arms, for **Grove Elfin**, grey colt; s. Grove Ballistie 200, d. Grove Fairy 231.
568 III. (**42.**)—**EVAN JONES**, Manoravon, Llandilo, for **Little Eva**, brown filly; s. Dewi Stone, d. Little Dons 2004 by Starlight 4.
569 **R. N. & H. C.**—**MISS E. C. V. HUGHES**, Bryn Hawddgar, Llanarthney, for **Hawddgar Mountain Echo**.
H. C.—569.

Class 74.—*Welsh Mountain Pony Fillies, foaled in 1911, not exceeding 11 3 hands, or 1912, not exceeding 11 2 hands.* [9 entries.]

- 570 I. (**41.**)—**J. LLOYD MORGAN**, Rhwdfon, Aberystwyth, for **Lady Moonlight**, white, foaled in 1911; s. Dyoll Starlight 4, d. Lady Starlight 2017 by Dyoll wind and 1.
571 II. (**45.**)—**W. J. ROBERTS**, The Mount, Church Stretton, for **Longmynd Rare Star** 3952, brown, foaled in 1911; s. Dyoll Starlight 4, d. Longmynd Rare Star.
572 III. (**43.**)—**MISS E. C. V. HUGHES**, Bryn Hawddgar, Llanarthney, for **Hawddgar Piccadilly** 3396, red roan, foaled in 1911, bred by A. Skomer, 36 Regent Street, London, W.; s. Shooting Star 73, d. Hawddgar Kitty Grey 2188 by Binead 283.
573 **R. N. & H. C.**—**MRS. H. D. GREENE**, Grove, Craven Arms, for **Grove Sprite** 2nd.
H. C.—573, 584.

Class 75.—*Welsh Mountain Pony Mares (Nurses), foaled in or before 1910, with Foals at foot, not having won a Class Prize of the value of £1 as a Brood Mare previous to May 20, 1914, not exceeding 12 hands.* [7 entries.]

- 574 I. (**45.**)—**MISS E. C. V. HUGHES**, Bryn Hawddgar, Llanarthney, for **Hawddgar Dewdrop** 1491, grey, foaled in 1903, bred by H. Maurice Lloyd, Delfryn, Llanwrda; s. Dyoll Starlight 4, d. Dyoll Crystal 606. [Foal by Hawddgar Mountain Chief.]
575 II. (**43.**)—**T. B. LEWIS**, Bronall, Llanwytind Wells, for **Seren Epynt** 428, roan chestnut, foaled in 1907, bred by D. Prytherch, Maes-on Farm, Llangamarch, [Foal by Gwyno Flyer 533].
576 III. (**42.**)—**MRS. H. D. GREENE**, Grove, Craven Arms, for **Grove Apricot** 425, grey, foaled in 1908, bred by Dr. Lloyd, Chirk; s. Stretton Torchlight, d. Glyn Dolly. [Foal by Grove Archlight 443.]
577 **R. N. & H. C.**—**W. J. ROBERTS**, The Mount, Church Stretton, for **Longmynd Countess**.
H. C.—588, 589.

Class 76.—*Welsh Mountain Pony Mares, foaled in or before 1910, with Foals at foot, not exceeding 12 hands.* [10 entries.]

- 578 I. (**10. & Champion.**)—**THE DUCHESS OF NIMCASTLE**, Hardwick Group, Clumber Park, Work-op, for **Clumber Janet** 3rd 378, grey, foaled in 1908; s. Hardwick Sensation 650, d. Clumber Janet 2nd by Hardwick Briton. [Foal by Dyoll Starlight 4.]

¹ Silver Medal given by the Welsh Pony and Cob Society for the best Stallion or Colt in Classes 70-73, entered or accepted for entry in the Welsh Pony Stud Book.
² Silver Medal given by the Welsh Pony and Cob Society for the best Mare or Filly in Classes 73-77, entered or accepted for entry in the Welsh Pony Stud Book.

lxvi Award of Live Stock Prizes at Shrewsbury, 1911.

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

- 595 II. (45.)—EDWARD MORGAN JONES, Cefnpenarth, Penybont Station, for **Pearth Flower Girl** 2211, grey, foaled in 1908, bred by the Radnorshire Polo and Race Company, Bledfa; s. Bledfa Shooting Star 73, d. Bledfa Shrimp 1212, (F. 125) Dvolf Starlight 4.]
- 595 III. (43.)—MRS. H. D. GREENE, Grove, Craven Arms, for **Grove Linelight**, grey, foaled in 1908, bred by J. Lloyd Morgan, Rhiwelen, Abergwili; s. Dvolf Starlight 4, d. Lady Greylight 2046 by Greylight 89. [Foal by Berkeley George 1907.]
- 600 **R. N. & H. C.**—THE DUCHESS OF NEWCASTLE, for **Clumber Lady Starlight**, H. C.—582, 601.
- Class 77.**—*Welsh Mountain Pony Mares, foaled in or before 1910, with foals at foot, not exceeding 12½ hands.* [5 entries.]
- 604 I. (410.) JOHN JONES & SONS, Dinarth Hall Pony Stud, Colwyn Bay, for **Fireaway** 2443, chestnut, foaled in 1904, bred by Pryce Jones, Rhydygof, Llanfair, d. Llwyn Flyer 2nd 10. [Foal by Frills Swell.]
- 605 II. (43.)—MRS. H. D. GREENE, Grove, Craven Arms, for **Grove Margold**, chestnut, foaled in 1910, bred by T. Price, Gwybedog, Llan-ammarch, Wales; s. Cluan Flyer 370, d. Grove Myrtle 2857 by Express Lion 42. [Foal by Berkeley George 127.]
- 602 III. (43.)—J. MARSHALL, DUGDALE, Llwyn Stud Farm, Llantyllin, for **Llwyn Peggy** 1770, dark brown, foaled in 1904; s. Llwyn Prince of Wales 41, d. Lady Sellous by Eiddwyn Flyer 2653. [Foal by Llwyn Cymro 497.]
- 606 **R. N. & H. C.**—W. ARTHUR FUGHE, Gwyndy, Llantyllin, for **Gwyndy Princess**, H. C.—606.

Hunter Riding Classes.¹

Class 78.—*Hunter Mares or Geldings, foaled in 1910, up to from 12 to 14 stone.* [18 entries.]

- 615 I. (415.)—GERALD LOUSADA, Angel Hotel, Grantham, for **The Buck**, chestnut gelding, breeder unknown.
- 620 II. (410.)—JOHN H. STOKES, Nether House, Great Bowden, Market Harborough, for **Scotch Sign**, bay gelding, breeder unknown.
- 607 III. (45.)—CAPTAIN CLIVE BEHRENS, Swinton Grange, Malton, for **Heather** 4106, brown mare; s. Scotch Sign (vol. 21, p. 497 G.S.B.), d. Whindlower 3804 by The Hero.
- 622 IV. (45.)—H. L. STOREY, Ballring, Lancaster, for **The Badger**, bay gelding, bred by John Comwy, Killassoe, Co. Clare; s. The Reeve, d. by Tipperary Boy.
- 612 V. (45.)—G. H. GREENE, Wigmore Grange, Leintwardine, for **Comet**, bay gelding; s. Suedorn, d. Comy by St. Clair.
- 616 **R. N. & H. C.**—G. A. ONSLOW, Harange, Shrewsbury, for **Marconi**, H. C.—611, C.—608.

Class 79.—*Hunter Mares or Geldings, foaled in 1910, up to more than 14 stone.* [10 entries.]

- 627 I. (415.)—W. P. JEFFCOCK, West Common, Harpenden, for **Bredon** (Supp. 185), bay gelding, bred by G. A. G. Brightre Gee, Redminster, Bristol; s. Iron Ard (vol. 21, p. 32 G.S.B.), d. Fanny Fern 2nd, by Yard Arm.
- 626 II. (410.)—COUNT FRITZ HOCHBERG, The Cottage, Great Bowden, Market Harborough, for **Tom Greylock**, dark grey gelding.
- 628 III. (45.)—W. P. JEFFCOCK, for **Hawthorne** (Supp. 164), grey gelding, bred by F. E. Bowser, Wigtoft, Boston; s. Solendour (vol. 21, p. 229 G.S.B.), d. Snowdrop 3rd 404.
- 634 IV. (45.)—JOHN H. STOKES, Nether House, Great Bowden, Market Harborough, for **Tangerine**, chestnut gelding, bred by John Gee, Welford, Rugby; s. Merry Mad, maker 22.
- 634 V. (45.)—CAPTAIN F. W. YATES, The Wood, Codsall Wood, Wolverhampton, for **Starlight**, dark brown gelding.

Class 80.—*Hunter Mares or Geldings (Novices), foaled in or before 1909, up to from 12 to 14 stone.* [23 entries.]

- 628 I. (415.)—B. DAVIES, Yeaton, Baschurch, Shrewsbury, for **Tango**, bay gelding, foaled in 1908, bred by B. Brown, South Holme, Slingsby, Malton; s. Overburn.
- 646 II. (410.)—LT.-COL. A. H. O. LLOYD, M.V.O., Leaton Knolls, Shrewsbury, for **Miss Heston**, chestnut mare, foaled in 1908, bred by Mrs Croft, Velvetown, Buttevant, Co. Wexon, d. by Crackenthorpe.
- 639 III. (45.)—JERSEY DE KNOOP, Calveley Hall, Tarporley, for **Brer Fox**, chestnut gelding, foaled in 1909, breeder unknown.
- 651 IV. (45.)—JOHN H. STOKES, Nether House, Great Bowden, Market Harborough, for **Primate**, chestnut gelding, foaled in 1909, breeder unknown.

¹ Prizes given by the Shrewsbury Local Committee.

Award of Live Stock Prizes at Shrewsbury, 1911. 18711

[Those otherwise stated, each prize animal named below was "bred by exhibitor"]

646 V. (25.)—JOHN DRAGE, Chapel Brampton, Northampton, for *David*, bay gelding, foaled in 1908, breeder unknown.

648 R. N. & H. C.—B. GILES BISHOP, Roddimore, Winslow, for *Victor*,
H. C.—652. C.—644, 649

Class 81.—Hunter Mares or Geldings (Notices), foaled in or before 1909, up to more than 14 stone. [19 entries.]

648 I. (215.)—J. ERIC CLEGG, The Starkies, Bury, for *Cock Robin*, chestnut gelding, foaled in 1908.

649 II. (210.)—JOHN H. STOKES, Nether House, Great Bowden, Market Harborough, for *Baron*, bay gelding, foaled in 1908, breeder unknown.

649 III. (215.)—JOHN H. STOKES, for *Balzac*, brown gelding, foaled in 1895, breeder unknown.

649 IV. (215.)—JOHN DRAGE, Chapel Brampton, Northampton, for *Bank Note*, bay gelding, foaled in 1908.

649 V. (215.)—ARTHUR SOWLER, Warren Farm, Fimero, Buckingham, for *Sphinx*, chestnut gelding, foaled in 1908, bred by B. Brown, South Holme Slough, Melton; s. *Sirdar*, d. *By Knight of Ruby*.

649 R. N. & H. C.—G. A. ONSLOW, Harnage, Shrewsbury, for *Hawker*,
H. C.—658, 668.

Class 82.—Hunter Mares or Geldings, foaled in or before 1910, up to from 12 to 13 7 stone. [19 entries.]

649 I. (220, & Champion.)—JOHN DRAGE, Chapel Brampton, Northampton, for *Goldfish*, chestnut gelding, foaled in 1909.

649 II. (215.)—H. G. FENWICK, Melton Mowbray, for *Bridge*, bay gelding, foaled in 1908.

649 III. (210.)—B. DAVIES, for *Tango*. (See Class 80.)

649 IV. (215.)—GERALD LOUSADA, for *The Buck*. (See Class 78.)

649 V. (215.)—JOHN H. STOKES, Nether House, Great Bowden, Market Harborough, for *Budon*, chestnut gelding, foaled in 1908, breeder unknown.

649 R. N. & H. C.—JOHN H. STOKES, for *Sunsat*,
H. C.—611, 616, 652. C.—608.

Class 83.—Hunter Mares or Geldings, foaled in or before 1910, up to more than from 13 7 and not more than 15 stone. [25 entries.]

649 I. (220.)—B. GILES BISHOP, Roddimore, Winslow, for *Delight*, brown gelding, foaled in 1909.

649 II. (215.)—CAPTAIN H. HEYWOOD-LOSSDALE, Shavington, Market Drayton, for *Slipknot*, chestnut gelding, foaled in 1909.

649 III. (210.)—JERSEY DE KNOOP, for *Brer Fox*. (See Class 80.)

649 IV. (215.)—JOHN DRAGE, for *David*. (See Class 80.)

649 V. (215.)—DAVID DAVIES, M.P., Bromerton, Llandudno, for *Venture*, chestnut gelding, foaled in 1908, bred by L. J. Perman, Broadwood Park, Lancaster; s. *Battlefield*, d. *Duchess* by *Friar Rush*.

649 R. N. & H. C.—J. KENNETH STEVENSON, Huntingdon, for *Syntax*,
H. C.—654, 675. C.—626.

Class 84.—Hunter Mares or Geldings, foaled in or before 1910, up to more than 15 stone. [16 entries.]

649 I. (220, & Champion.)—B. GILES BISHOP, Roddimore, Winslow, for *Goldmine*, chestnut gelding, foaled in 1907.

649 II. (215.)—JOHN H. STOKES, Nether House, Great Bowden, Market Harborough, for *Gentleman John*, bay gelding, foaled in 1908, breeder unknown.

649 III. (210.)—J. ERIC CLEGG, for *Cock Robin*. (See Class 81.)

649 IV. (215.)—ARTHUR SOWLER, Warren Farm, Fimero, Buckingham, for *Guardsman*, bay gelding, foaled in 1907, bred by W. Brown, Slingsby, Yorks; s. *Knockabout*.

649 V. (215.)—JOHN H. STOKES, for *Balzac*. (See Class 81.)

649 R. N. & H. C.—JOHN DRAGE, Chapel Brampton, Northampton, for *Bank Note*,
H. C.—666.

Hacks and Riding Ponies.²

Class 85.—Mares or Geldings, foaled in or before 1910, not exceeding 12 2 hands. To be ridden by a child born in or after 1902. [8 entries.]

649 I. (210.)—H. TATHAM WARTER, The Cottage, Bishop's Cleeve, Leamington, for *Sunset*, bay mare, foaled in 1902.

649 II. (215.)—MISS BETTY WHITWORTH, Southwood End, H. Max, for *The Tetrarch*, grey gelding, foaled in 1904, breeder unknown.

¹ Gold Challenge Cup given by gentlemen interested in Hunters for the best Mare or Gelding in Classes 78-84.

² Prizes given by the Shrewsbury Local Committee.

lxviii Award of Live Stock Prizes at Shrewsbury, 1911.

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."]—

- 707 III. (23.)—H. TATHAM WARTER, for **Silver Eye**, grey gelding, foaled in 1910.
 708 R. N. & H. C.—W. ARTHUR PUGH, Gwyndy, Llantyllin.

Class 86.—Mares or Geldings, foaled in or before 1910, over 12·2 and not exceeding 13·2 hands. To be ridden by a child born in or after 1909
 [8 entries.]

- 715 I. (210.)—MRS. PHILIP HUNLOCK, Bucknell Manor, Bicester, for **Rumpel's Tinkin**, brown gelding, foaled in 1908.
 713 II. (25.)—CAPTAIN H. HERWOOD-LONSDALE, Shavington, Market Drayton, for **John Bull**, chestnut gelding, foaled in 1908, breeder unknown.
 712 III. (23.)—T. P. BOERTON, Hafond, Trefnant, for **Midget**, grey mare foaled in 1906, breeder unknown.
 C.—717.

Class 87.—Mares or Geldings, foaled in or before 1910, over 13·2 and not exceeding 14·2 hands. [12 entries.]

- 729 I. (215.)—JOHN H. STOKES, Nether House, Great Bowden, Market Harborough, for **The Lark**, bay gelding, foaled in 1908, bred by Mr. Sawbridge, Abingdon Street, Northampton; s. *Lactantius*.
 725 II. (210.)—McMORRAN BROS., Aston Cottage, Nantwich, for **Last Minute**, chestnut gelding, foaled in 1910.
 727 III. (25.)—MRS. C. PRASE, Tiverton, Tarporley, for **Bravo**, bay gelding, foaled in 1907.
 724 R. N. & H. C.—MISS GWYNEDD LLOYD, Leaton Knolls, Shrewsbury, for **Lady Jane Grey**.

Class 88.—Mares or Geldings foaled in or before 1910, over 14·2 and not exceeding 15·2 hands. [17 entries.]

- 741 I. (215, & R.N. for Champion.)¹—JOHN H. STOKES, Nether House, Great Bowden, Market Harborough, for **Sunrise**, chestnut gelding, foaled in 1908, breeder unknown.
 735 II. (210.)—H. FAUDEL-PHILLIPS, Mapleton Stud, Edenbridge, for **Tarantella**, bay chestnut mare, foaled in 1906, bred by J. G. Heywood, Okehampton; s. *Turkot*, d. *Dolly* by *Freshwater*.
 736 III. (25.)—M. F. GOODBRODY, 21 Kensington Gore, London, for **Beau Sabreur**, chestnut gelding, foaled in 1908, bred by J. Ladley; s. *Lord Bobs*, d. *Belgravia* by *Royal Hampton*.
 734 R. N. & H. C.—H. FAUDEL-PHILLIPS, for **Captain Gingah**.
 C.—733.

Class 89.—Mares or Geldings, foaled in or before 1910, over 15·2 hands. [9 entries.]

- 748 I. (215, & Champion.)¹—H. FAUDEL-PHILLIPS, Mapleton Stud, Edenbridge, for **Chocolate Soldier**, chestnut gelding, foaled in 1907, bred by Sir John Barker, Bt, The Grange, Bishop's Stortford; s. *Jew Boy* 358, d. *Lightning* 728.
 747 II. (210.)—JERSEY DE KNOOP, Calveley Hall, Tarporley, for **Dayrell**, bay gelding, foaled in 1909.
 745 III. (25.)—W. W. BOURNE, Garston Manor, Watford, for **Sugar Cane**, chestnut gelding, foaled in 1907.
 653 R. N. & H. C.—RICHARD G. WARNER, Sandorne Grove, Shrewsbury, for **Tompstress**.

Driving Classes.²

Class 90.—Harness Mares or Geldings (Novice), not exceeding 14 hands.
 [13 entries.]

- 752 I. (215.)—F. W. JONES, Llanmaes Stud Farm, St. Fagans, Cardiff, for **Trebanog Horace**, brown gelding, foaled in 1908, bred by James Howell, Llanmaes Stud Farm, s. *Woodlands Ennet* 339, d. *Dewdrop* by General Gordon 2984.
 750 II. (210.)—SIR HOWARD FRANK, 19 Cheyne Walk, Chelsea, London, S.W., for **Holyport Rondo**, brown gelding, foaled in 1909, bred by Miss Langworthy, Hendes Manor, Holyport, Maidenhead; s. *Holyport Moorcock* 10711, d. *Holyport Ronda* 19992 by *Dombey* 4725.
 758 III. (25.)—BENTHAM W. MILLS, Redhill Farm, Edgware, for **Redhill Princess**, bay mare, foaled in 1911; s. *Holyport Ruby* 10263, d. *Redhill Countess* by *Winnal George* 2440.
 755 IV. (25.)—MRS. A. C. KING, Braishfield Manor, Romsey, for **Harviestoun Edna**, liver chestnut gelding, foaled in 1910, bred by J. Ernest Kerr, Harviestoun Castle, Dollar; s. *Matheus* 6473, d. *Tissington Glaze* 17023 by *Sir Ghiblo* 1612.

¹ Gold Challenge Cup given by gentlemen interested in Hacks and Riding Ponies for the best Animal in Classes 85-89.

² Prizes given by the Shrewsbury Local Committee.

Award of Live Stock Prizes at Shrewsbury, 1914. [ix]

(Unless otherwise stated, each prize animal named below was "bred by exhibitor.")

Class 91.—*Harness Mares or Geldings (Novice), over 14 and not exceeding 15 hands.* [13 entries.]

- 78 I. (415, & Champion.)—W. W. BOURNE, Garston Manor, Watford, for *Mel-Valley's Gay Lad*, bay gelding, foaled in 1911, bred by Alex. Morton, Gowanbank, Darvel; s. Mathias 6473, d. by Goldfinder 6th 1791.
- 78 II. (410.)—MISS LANGWORTHY, Hendens Manor, Holyport, Maidenhead, for *Holyport May Dance*, black gelding, foaled in 1909, bred by J. Ernest Kerr, Harviestoun Castle, Dollar; s. Mathias 6473, d. Londesborough Nancy 1984 by His Majesty 2013 or Garton Duke of Connaught 3009.
- 78 III. (45.)—T. W. SIMPSON, Greenfield House, Laleham-on-Thames, for *Royal Mathias* 12154, bay gelding, foaled in 1908, bred by H. Le Marchant, East Croydon; s. Mathias 6473, d. Daisy Danegelt 8804 by Danegelt 174.
- 78 IV. (45.)—JOHN JONES, Whitegate Stud, Wrexham, for *Action Gay Boy*, chestnut gelding, foaled in 1908, bred by G. N. Stephenson, Goodmanham, Market Weighton; s. Polonus 4931, d. May Blossom 1990 by Garton Duke of Connaught 3009.
- 78 R. N. & H. C.—THE HON. MRS. BATHURST, Lydney Park, Gloucester, for *Lydney Flash*.

Class 92.—*Harness Mares or Geldings (Novice), over 15 hands.* [10 entries.]

- 78 I. (415, & R. N. for Champion.)—EDWARD COLSTON, Roundway Park, Devizes, for *Constable*, brown gelding, foaled in 1907, bred by Sir Gilbert Greenall, Rt. Walton Hall, Warrington; s. Mathias 6473, d. by Goldfinder 6th 1791.
- 78 II. (410.)—SIR HOWARD FRANK, 19 Cheyne Walk, Chelsea, London, S.W., for *Terrington Modish* 20280, chestnut mare, foaled in 1915, bred by Sir Gilbert Greenall, Rt. Walton Hall, Warrington; s. Copper King 7764, d. Terrington Modesty 11584 by Goldfinder 6th 1791.
- 78 III. (45.)—MRS. A. C. KING, Braishfield Manor, Romsey, for *Village Pearl* 4198, black mare, foaled in 1909, bred by R. Scott, Thornholm, Carlisle; s. Mathias 6473, d. Tanto 19229 by Gentleman John 3634.
- 78 IV. (45.)—T. W. SIMPSON, Greenfield House, Laleham-on-Thames, for *Prince John*, chestnut gelding, foaled in 1910, bred by G. Barton, Thorpe Willoughby, Selby; s. Polonus 4931, d. Lovely Lady 8182 by Connaught 1433.
- 78 R. N. & H. C.—J. L. TILLOTSON, for *Rendova Squire*.

Class 93.—*Harness Mares or Geldings, not exceeding 14 hands.* [12 entries.]

- 78 I. (415, & R. N. for Champion.)—W. W. BOURNE, Garston Manor, Watford, for *Mel-Valley's Fame*, bay gelding, foaled in 1902, bred by Walter Cliff, Melbourne Hall, York; s. Royal Success 8895, d. Wortley Bell 14673 by Sir Horace 5402.
- 78 II. (410.)—F. W. JONES, for *Trehanog Horace*. (See Class 90.)
- 78 III. (45.)—SIR HOWARD FRANK, for *Holyport Rondo*. (See Class 90.)
- 78 IV. (45.)—MISS LANGWORTHY, Hendens Manor, Holyport, Maidenhead, for *Holyport Country Dance* 11078, brown gelding, foaled in 1909; s. Faddenfield's Horace 8692, d. Holyport Firegod 18283 by Julius Caesar 2nd 5696.
- 78 R. N. & H. C.—JAMES HALES, Roughton Pony Stud, Bury St. Edmunds, for *Roughton Lady*.

Class 94.—*Harness Mares or Geldings, over 14 and not exceeding 15 hands.* [13 entries.]

- 78 I. (415.)—PHILIP SMITH, Haddon House, Ashton-on-Mersey, for *Queen of Ayr* 20178, bay mare, foaled in 1903, bred by Mrs. Walker, Lamefeld, West Calder; s. Mathias 6473, d. Dearest 2nd 10827 by Lord Rickell 8288.
- 78 II. (410.)—PHILIP SMITH, for *Melbourne Princess* 18347, bay mare, foaled in 1906, bred by Walter Cliff, Melbourne Hall, York; s. Merry Wildfire 3552, d. Melbourne Duchess 16571 by Garton Duke of Connaught 3009.
- 78 III. (45.)—W. W. BOURNE, for *Mel-Valley's Gay Lad*. (See Class 91.)
- 78 IV. (45.)—MISS LANGWORTHY, for *Holyport May Dance*. (See Class 91.)
- 78 R. N. & H. C.—T. W. SIMPSON, for *Royal Mathias*. (See Class 91.)

Class 95.—*Harness Mares or Geldings, over 15 and not exceeding 15½ hands.* [7 entries.]

- 78 I. (415.)—PHILIP SMITH, Haddon House, Ashton-on-Mersey, for *King of the Air*, dark brown gelding, foaled in 1907, bred by G. McCall, Littlebore, Lanes; s. Mathias 6473, d. Holin Flashlight 16760 by Scribony Lightning 7564.
- 78 II. (410.)—PHILIP SMITH, for *Northern Glory* 20131, dark brown mare, foaled in 1907, bred by Alex. Morton, Gowanbank, Darvel; s. Mathias 6473, d. Boz Myrtle 11818 by Garton Duke of Connaught 3009.

* Gold Challenge Cup, given by gentlemen interested in Harness Horses, for the best animal in the Novice Classes 90-92.

* Gold Challenge Cup given for the best animal in Classes 93-95.

lxx *Acad of Live Stock Prizes at Shrewsbury, 1904.*

[Unless otherwise stated, each prize animal named below was "bred by the owner."

- 774 III. (25.)—SIR HOWARD FRANK, for *Terrington Modiah*. (See Class 97.)
 796 IV. (25.)—MISS ELLA S. ROSS, Beechfield, Sale, Cheshire, for *Grand Vulcan*, black gelding, foaled in 1902, bred by R. O. Marshall, Burntsfields, Kilbarrow, Leicestershire; *Mathias* 6473, d. *Rosetta* 8426 by Lord Derby 2nd 417.

- 790 R. N. & H. C.—J. L. TILLOTSON, Rendova Stud, Great Saughall, Cheshire, for *Rendova Squire*.
 C.—791

Class 96.—*Harness Mares or Geldings, over 15.2 hands.* [12 entries.]

- 802 I. (215, & Champion.)—A. W. HICKLING, Adbolton, Nottingham, for *Albion Black Prince* 11314, black gelding, foaled in 1909; s. *Mathias* 6473, d. *Princess* Coo 1227 by Garton Duke of Connaught 3069.
 806 II. (210.)—T. W. SIMPSON, Greenfield House, Laleham-on-Thames, for *Argo* 1072, chestnut gelding, foaled in 1907, bred by W. Burdett-Coutts, M.P., Brookland, London, N.; s. *Polonius* 4931, d. *Fragility* 10940 by *Agility* 2799.
 805 III. (25.)—MISS DORA SCHINTZ, Childwall Hall, Liverpool, for *Aerial Queen*, grey chestnut mare, foaled in 1908, bred by R. P. Evans, Woodhatch House, Rugeley, Staffs.; s. *Polonius* 4931, d. *Julia* 11079 by *Dagenham* 4214.
 800 IV. (25.)—MISS A. SYLVIA BROCKLEBANK, Alexton Hall, Uppingham, for *Optimistic*, grey gelding, foaled in 1905, bred by H. M. Davey, Maesmynan Hall, Aberystwyth, s. *Kassius* 8207.

- 801 R. N. & H. C.—EDWARD COLSTON, Roundway Park, Devizes, for *Constable*.

Class 97.—*Pairs of Harness Mares or Geldings, not exceeding 15 hands, to be driven in Double Harness.* [6 entries.]

- 790 & 813 I. (215, & Champion.)—PHILIP SMITH, for *Malbourne Princess* (see Class 99) and *Heaton Primrose* 21300, bay mare, foaled in 1909, bred by Stephen Cliff, Woking, s. *New Gold* 4966, d. *Lady Venice* 11184 by *Venice* 4565.
 764 & 783 II. (210.)—PAUL HOFFMAN, 4 Cordigan Mansions, Richmond Hill, Surrey, for *Belle Mere* 21237, dark chestnut mare, foaled in 1909, bred by W. Burdett-Coutts, M.P., Brookland, London, N.; s. *Polonius* 4931, d. *Bellissima* 12441 by *Heau* 1072; and *Baron Mystery* 23465, dark chestnut mare, foaled in 1906, bred by J. H. Riley-Smith, Tadcaster; s. *Polonius* 4931, d. *Inholmes Mystery* 3096 by *Lord Hamlet* 3750.
 769 & 812 III. (25.)—T. W. SIMPSON, for *Royal Mathias* (see Class 91); and *Gay Lad* 11965, bay gelding, foaled in 1904, bred by H. C. Culhady, Hunstanton, Norfolk; s. *Hunston Gouget* 10714, d. *Selene* 12284 by *Cassius* 2391.
 784 & 808 IV. (25.)—W. W. BOURNER, for *Mel-Valley's Fame* (see Class 93); and *Mel-Valley's Famous*, bay gelding, foaled in 1909, bred by John Jones, Whitegate Stud, Wrexham; s. *Whitegate Swell* 6933, d. *Whitegate Lily of the Valley* 15449 by His Majesty 2513.
 760 & 761 R. N. & H. C.—THE HON. MRS. BATHURST, for *Lydney Flash* and *Lydney Polonia*.

Class 98.—*Pairs of Harness Mares or Geldings, over 15 hands, to be driven in Double Harness.* [6 entries.]

- 815 & 816 I. (215, & R. N. for Champion.)—SIR HOWARD FRANK, 19 Cheyne Wk., Chelsea, London, S.W., for *Buckingham*, bay gelding, foaled in 1909, bred by Ian Ramsay, Killyallon, Isle of Islay; s. *Lord Hamlet* 3750, d. *Litcham Merry* 1674 by *Bonfire* 2281, and *Eclipse*, bay gelding.
 761 & 806 II. (210.)—T. W. SIMPSON, for *Prince John* (see Class 92); and *Argo* (see Class 96).
 800 & 814 III. (25.)—MISS A. SYLVIA BROCKLEBANK, for *Optimistic* (see Class 80); and *Illumination*, bay gelding, foaled in 1906, bred by the Right Hon. F. Wrench, Killicoma, Ballybrack; s. *Blaze* 2nd 2576, d. *Bay Clara* 14120 by *Chocolate* Junior 418.
 804 & 817 IV. (25.)—MISS ELLA S. ROSS, Beechfield, Sale, Cheshire, for *Grand Viscount*, black gelding, foaled in 1906, bred by Gavin Ross, Dykeshead, Chappeltown; s. *Mathias* 6473, d. *Maid of Honour* 1245 by *Confidence* 169; and *Grand Vizier*, black gelding, foaled in 1902, bred by Henry Whittick, Newland, Hull; s. *Gentleman John* 3024, d. *Fairy Queen* 8635 by *Curlew* 1755.

- 779 & 790 R. N. & H. C.—MISS ELLA S. ROSS, for *Grand Vulture* and *Grand Vulcan*.
Class 99.—*Pairs of Harness Mares or Geldings, not exceeding 15 hands, to be driven Tandem.* [6 entries.]

- 790 & 813 I. (215, & Champion.)—PHILIP SMITH, for *Malbourne Princess* (see Class 97); and *Queen of Ayr* (see Class 94).
 769 & 812 II. (210.)—T. W. SIMPSON, for *Royal Mathias* (see Class 91); and *Gay Lad* (see Class 97).

¹ Gold Challenge Cup given for the best animal in Classes 93-96.

² Gold Challenge Cup, given for the best pair in Classes 97 and 98.

³ The "Venture" Gold Challenge Cup given by a Member of the R.A.S.E. for the best Tandem in Classes 99 and 100.

Award of Live Stock Prizes at Shrewsbury, 1914.

Unless otherwise stated, each prize animal named below was "bred by exhibitor."

- 24 & 25 III. (£5).—W. W. BOURNE, for *Mel-Valley's Fame* (see Class 83); and *Mel-Valley's Famous* (see Class 87).
 26 & 27 IV. (£5).—THE HON. MRS. BATHURST, Lydney Park, Glouc., for *Lydney Flash* (a bay mare, foaled in 1910; s. Flash Colt 1023, d. Birthday Girl 1260); *Cassius 785*; and *Lydney Polonia* 21622, chestnut mare, foaled in 1899; s. Phoenix 4931, d. Birthday Gift 12460 by Cassius 2367.

Class 100.—*Pairs of Harness Mares or Geldings, over 15 hands, to be driven Tandem.* [5 entries.]

- 28 & 29 I. (£15, & R. N. for Champion.)—T. W. SIMPSON, for Prince John (see Class 84); and *Argo* (see Class 96).
 30 & 31 II. (£10).—MISS A. SYLVIA BROCKLEBANK, for *Optimistic* (see Class 100); and *Illumination* (see Class 98).
 32 & 33 III. (£5).—MISS ELLA S. ROSS, for *Grand Vulture* 11454, black & blue, foaled in 1905, bred by E. Norman, Haddingham; s. Wycham Fitter Thack 808, d. Carotte 1885 by Prickwillow King 7857; and *Grand Vizier* (see Class 100).

Four-in-hand Teams.

Class 101.—*Mares or Geldings.* [4 entries.]

- A I. (£20, & Champion.)—W. A. BARRON, 91 Westbourne Terrace, London, W., for four chestnuts.
 C II. (£25, & R. N. for Champion.)—MISS ELLA S. ROSS, Boechfield, Sale, Cheshire, for four blacks.
 B III. (£10).—MISS A. SYLVIA BROCKLEBANK, Alexton Hall, Uppoucham, for four bays.
 D IV. (£5).—SIR EDWARD STERN, 4 Carlton House Terrace, London, W., for four rears.

*JUMPING COMPETITIONS.*¹

Class A.—*Mares or Geldings.* [30 entries.]

- 1 I. (£25).—MRS. JAMES P. GLENCROSS, Garth House, Weston super Mare, for Ormond Boy.
 2 II. (£10).—W. D. EARDLEY, Colehurst Manor, Market Drayton, for Annie Moore.
 3 III. (£5).—W. D. EARDLEY, for Jimmy.
 4 IV. (£5).—A. E. MERRETT, Green Farm, Hardwicke, Gloucester, for Why Not.
 5 V. (£5).—F. W. FOSTER, Marsh Farm, Etwell, Derby, for Paddy.

Class B.—*Mares or Geldings.* [27 entries.]

- 6 I. (£20).—F. W. FOSTER, Marsh Farm, Etwell, Derby, for Comet.
 7 II. Equal Prize [£1].—J. PEASE, Tiverton, Torporley, for Snowball.
 8 III. of £7 10s. [£1].—F. V. GRANGE & T. GLENCROSS, Alveston, Nantwich, for Northdown.
 9 IV. (£5).—W. D. EARDLEY, Colehurst Manor, Market Drayton, for Annie Moore.
 10 V. (£5).—A. E. MERRETT, Green Farm, Hardwicke, Gloucester, for Why Not.

Class C.—*Mares or Geldings.* [25 entries.]

- 11 I. (£15).—F. V. GRANGE & T. GLENCROSS, Alveston, Nantwich, for Nomination.
 12 II. (£10).—J. PEASE, Tiverton, Torporley, for Snowball.
 13 III. (£5).—F. W. FOSTER, Marsh Farm, Etwell, Derby, for Paddy.
 14 IV. (£5).—T. E. WHITTINGHAM, Berkley Street Stables, Burton-on-Trent, for John B.
 15 V. (£5).—F. V. GRANGE & T. GLENCROSS, for Rufus.

Class D.—*Champion Class. Mares or Geldings.* [20 entries.]

- 16 I. (£25).—T. GLENCROSS & F. V. GRANGE, The Loose Box, Weston super Mare, for Tradesman.
 17 II. (£15).—W. D. EARDLEY, Colehurst Manor, Market Drayton, for Annie Moore.
 18 III. (£5).—F. V. GRANGE & T. GLENCROSS, Alveston, Nantwich, for Northdown.
 19 IV. Equal Prizes [£1].—THE ADMINISTRATORS OF JOHN TAYLOR & CO. Moor Street, Birmingham, for Kirk for Captive Maid.
 20 V. (£6 13s. 4d.).—F. V. GRANGE & T. GLENCROSS, for Rufus.

¹ The "Venture" Gold Challenge Cup given by a Member of the R.A.S.E. for the best Tandem in Classes 91 and 100.

² Gold Challenge Cup, offered by a Member of the R.A.S.E. for the best Team in Class 101.

³ Prizes given by the Shrewsbury Local Committee.

lxxii *Award of Live Stock Prizes at Shrewsbury, 1914.*

(Unless otherwise stated, each prize animal named below was "bred by exhibitor.")

CATTLE. Shorthorns.

- Class 102.—Shorthorn Bulls, calved in 1909, 1910, or 1911. [22 entries.]**
- 832 I. (£10, & Champion.)—SIR HERBERT LEON, BT., Bletchley Park, Bucks., for *Silver Mint* 3rd 107062, red, born Jan. 11, 1909, bred by Walter Hazell, Walton, Bucks., Aylesbury; s. *Silver Mint* 2nd 100653, d. *Juliet* by Prince William 88870.
- 833 II. (£6.)—EARL MANVERS, Holme Pierrepont, Nottingham, for *Royal Sovereign* 113193, red, born April 3, 1911; s. *Duke of Kingston* 2nd 102088, d. *Empress* M. 102088, bred by Red Emperor 87026.
- 838 III. (£4.)—WILLIAM RICHARDSON, Laverock Bridge, Kendal, for *Basing* 26th 102088, roan, born April 12, 1910, bred by W. G. Nicholson, M.P., Basing Park, Alton, Hants.; s. *Baption Sovereign* 101380, d. *Vertens* 53rd by Royal Standard 7770.
- 831 IV. (£3.)—GEORGE HARRISON, Gainford Hall, Darlington, for *Inschfield* 26th 102122, red, born April 4, 1910, bred by G. A. Bruce, Inschfield, Insch, Notts.; s. *Endymion* 102113, d. *Jessie* 4th by Sittytton Champion 82349.
- 835 V. (£3.)—F. MILLER, La Belen, Clifton Road, Birkenhead, for *Man of War* 102088, roan, born Feb. 1, 1910, bred by J. C. Toppin, Musgrave Hall, Skelton, Pembrokeshire; s. *Bletchley Lord* 8954, d. *Mermaid* by British Volunteer 85448.
- 836 R. N. & H. C.—THE DUKE OF NORTHUMBERLAND, K.G., Alnwick Castle, Northumberland, for *Alnwick Wizard*.
H. C.—833, 830. C.—838.

Class 103.—Shorthorn Bulls, calved on or between January 1, 1912, and March 31, 1912. [13 entries.]

- 850 I. (£10.)—THE DUKE OF PORTLAND, K.G., Welbeck, Worksop, for *Master Pye* 2nd 116303, red, born Feb. 24; s. *Golden Favourite* 98360, d. *Miss Pye* by Village Cameo 97568.
- 847 II. (£6.)—V. & G. HUGHES, Gresty, Crewe, for *Eardiston* 115322, dark roan, born March 23, bred by J. B. Oswell, Eardiston, West Felton, Oswestry; s. *Eardiston Prince* 103570, d. *Blanche Butterfly* by Morelio 84176.
- 854 III. (£4.)—JOSEPH A. WILLIAMS, Moor Park, Harrogate, for *Prince Paul* 11064, dark roan, born Jan. 18; s. *Prestor* 10745, d. *Pony* by Nabob 103102.
- 852 IV. (£3.)—RICHARD WARD & SON, Old Hall Farm, Swanwick, Alfreton, for *Airmas* 112839, roan, born Jan. 19; s. *Norley Forager* 5th 103202, d. *Lady Faithful* by Ruan Ronald 10362.
- 853 R. N. & H. C.—FRANK B. WILKINSON, Cavendish Lodge, Edwinstowe, Newark, for *Proud Knight*.
H. C.—845.

Class 104.—Shorthorn Bulls, calved on or between April 1, 1912, and December 31, 1912. [32 entries.]

- 806 I. (£10, & R. N. for Champion.)—F. MILLER, La Belen, Clifton Road, Birkenhead, for *Gainford Royal Champion* 116493, roan, born April 1, bred by George Harrison, Gainford Hall, Darlington; s. *Collynie Champion* 69417, d. *Tebdy Royal Dick* 604th by Shamrock 84742.
- 875 II. (£6.)—SIR OWEN PHILLIPS, K.C.M.G., Coomb, Carmarthen, for *Eastwood Knight*, roan, born April 11, bred by Joseph Eccles, Myerrough House, Gainsborough; s. *Newton Crystal* 92658, d. *Daffodil* 31st (vol. 57, p. 746) by Roan Vanguard 90758.
- 802 III. (£4.)—GEORGE HARRISON, Gainford Hall, Darlington, for *Hindley Gold* 11506, white, born June 1, bred by Joseph Pumphrey, Hindley Hall, Stocksfield-on-Tyne; s. *Starlight* 107148, d. *Golden Marchioness* by Strowan Marquis 13th 90388.
- 880 IV. (£3.)—WALTER M. SCOTT, Nether Swell Manor, Slown-on-the-Wold, for *Forest King*, red roan, born May 1, bred by A. M. Macintyre, Towle Barclay, Atherstone Station; s. *Guardian* 11059, d. *Findon Red Violet* 2nd (vol. 53, p. 755) by Cyprus King 85720.
- 878 V. (£3.)—C. F. RAPHAEL, Porters Park, Shenley, Herts., for *Shenley Beau* 11009, roan, born April 1; s. *Beaufort Landmarker* 107835, d. *Mary Grace* 10th by Pride of Avon 86678.
- 803 R. N. & H. C.—W. J. HOSKEN, Pulsack, Hayle, Cornwall, for *Crusader*.
H. C.—890. C.—807.

Class 105.—Shorthorn Bulls, calved on or between January 1, 1913, and March 31, 1913. [41 entries.]

- 906 I. (£10.)—EARL MANVERS, Holme Pierrepont, Nottingham, for *Earl of Kingston*, rich roan, born March 3rd; s. *Marquis of Dorchester* 112455, d. *Pierrepont Grenfield* (vol. 57, p. 944) by Denmark's Heir 94856.

¹ Champion Prize of £20 given by the Shorthorn Society of Great Britain and Ireland for the best Bull in Classes 102-106, 115 and 116. A Prize of £10 is given by a Member of the R.A.S.P. and a Silver Medal by the Shorthorn Society to the Breeder of the Champion Bull.

² Prizes given by the Shorthorn Society.

Award of Live Stock Prizes at Shrewsbury, 1914. LXVIII

[If not otherwise stated, each prize animal named below was "bred by exhibitor."] 1

- 857 II. (£5.)—**HIS MAJESTY THE KING**, Royal Farms, Windsor, for **Royal Gold**, red, born Jan. 30; s. Proud Jubilant 10637, d. Golden Fairy (vol. 57, p. 48) by Winsome Ltd 82648.
- 858 III. (£4.)—**FRANK B. WILKINSON**, Cavendish Lodge, Edinastowe, Newark, for **Gwenog Champion**, roan, born Jan. 2, bred by Davies & Co., Carmarthen; s. Haddon Lord (vol. 60), d. Dainty Duchess (vol. 53, p. 114), by Lord Farves & Co.
- 859 IV. (£3.)—**JOSEPH PUMPHREY**, Hindley Hall, Stockfield-on-Tyne, for **Augusta's Diamond 2nd**, roan, born March 26, bred by the Hon. H. C. Lewis, Meanley, Saundersfoot, Pembrokeshire; s. Morning Star 10943, d. Augusta Fyvie (vol. 57, p. 76), by Diamond Fyvie 84381.
- 860 V. (£3.)—**RICHARD CORNELIUS**, Bankfields, Eastham, Cheshire, for **Sunny Jim**, roan, born March 10; s. Duke of Kingston 2nd 102088, d. Jilt 4th (vol. 56, p. 56) by Count 80770.
- 861 R. N. & H. C.—**EDGAR W. BISHOP**, Effield, Oxford, for **Chance**.
- 862 S. P. (£10.)—**JOHN B. OSWELL**, Eardiston House, West-felton, Cheshire, for **Eardiston Captain**, dark roan, born Jan. 23; s. Ivan Dauntless 11302, d. Penada (vol. 55, p. 1000) by Vain Victor 84350.
H. C.—896, 917. C.—899, 901.

Class 106.—*Shorthorn Bulls, calved on or between April 1, 1913, and December 31, 1913.* [42 entries.]

- 863 I. (£10.)—**EARL MANVERS**, Holme Pierrepont, Nottingham, for **Cesar Augustus**, roan, born May 1; s. White Emperor 101104, d. Augusta Anne (vol. 57, p. 730) by Baron Fortune 80792.
- 864 II. (£5.)—**JOHN GILL**, Thorn Farm, Stainton, North, for **Prince Beauty**, dark roan, born June 14; s. Collynie Golden Star 105070, d. Vain Beauty (vol. 56, p. 601) by Jim Sides 99230.
- 865 III. (£4.)—**CAPTAIN CLIVE BEHRENS**, Swinton Grange, Malton, for **Swinton St. Clipper**, red, born June 10; s. Swinton Saint 110309, d. Clipper Hope (vol. 58, p. 801) by Band Sergeant 101306.
- 866 IV. (£3.)—**GEORGE HARRISON**, Gainford Hall, Darlington, for **Collynie Mandarin**, roan, born May 17, bred by William Duthie, Collynie, Tarves, N. B.; s. Max of Clony 112487, d. Mistletoe 36th (vol. 57, p. 679) by Bapton Favourite 70684.
- 867 V. (£3.)—**CAPTAIN CLIVE BEHRENS**, for **Swinton Sardonyx**, red, born June 6; s. Swinton Saint 110309, d. Lady Bright Jewel 3rd (vol. 56, p. 120) by Gainford Scotchman 102301.
- 868 R. N. & H. C.—**THOMAS LANCASTER**, Spencey Croft, Alston, Cumberland, for **Favourite Rosewood**.
- 869 S. P. (£5.)—**S. F. M. NEVETT**, Yorton, Harmer Hill, Salop, for **Yorton Archer**, red, born April 12; s. Real Diamond 100172, d. Yorton Dorothy (vol. 57, p. 1050) by Yorton Conqueror 97736.
H. C.—896. C.—947, 965.

Class 107.—*Group Class, consisting of either three or four Shorthorn Bulls, bred by Exhibitor.* 2 [10 entries.]

- 870 887, 908, 922 I. (£15.)—**EARL MANVERS**, for **Royal Sovereign**, **Kingston's Glory**, **Earl of Kingston** and **Cesar Augustus**.
- 871 867, 928, 949 II. (£10.)—**CAPTAIN CLIVE BEHRENS**, for **Swinton Saint**, **Swinton Simile**, **Swinton St. Clipper** and **Swinton Sardonyx**.
- 872 900, 961 R. N. & H. C.—**THE DUKE OF NORTHUMBERLAND**, K.O., for **Alnwick Wizard**, **Alnwick Yeoman** and **Red Leader**.

Class 108.—*Shorthorn Cows (in-milk), calved in or before 1910.* [7 entries.]

- 873 I. (£10 & Champion.)—**RICHARD CORNELIUS**, Bankfields, Eastham, Cheshire, for **Bankfields Belle** (vol. 57, p. 584), roan, born May 19 1896, calved May 17, 1914; s. Village Beau 8781, d. Eastington Phantom 2nd by Alder 17th Jasper 86647.
- 874 II. (£6.)—**JOHN H. MADEN**, Rockcliffe House, Bacup, Lancs., for **Bertha 9th** (vol. 57, p. 733), white, born March 3, 1907, calved April 2, 1911, bred by J. & A. Milne, Nether Cumbhill, Mucchalls, Stonehaven; s. Administrator 90610, d. Bertha 6th by Count Sunshine 74304.

¹ Two Special District Prizes of (I.) £10 given by the Shorthorn Society, and (II.) £5 given through the Shropshire and West Midland Agricultural Society, for the two best Bulls in Classes 105, 106, and 116, the property of Exhibitors residing in Shropshire. A Silver Medal is also given by the Shorthorn Society to the breeder of the animal winning the £10 Prize.

² Prizes given by the Shorthorn Society.

³ Champion Prize of £20 given by the Shorthorn Society for the best Cow or Heifer in Classes 108-113 and 117-119. A Prize of £10 is given by the R.A.S.E., and a Silver Medal by the Shorthorn Society to the breeder of the Champion Cow or Heifer.

lxxiv *Award of Live Stock Prices at Shrewsbury, 1911.*

(Unless otherwise stated, each prize animal named below was "bred by exhibitor.")

- 970 III. (24).—R. J. BALSTON, Bilsington Priory, Ashford, Kent, for *Cumberlandian* (vol. 53, p. 912), roan, born April 30, 1907, calved Feb. 10, 1914, bred by A. J. M. B. Bridgebank, Stranraer; s. *Choir Boy* 91238, d. *Jubilee Belle* by Scottish Victoria.
- 971 E. Y. & H. C.—W. M. CAZALET, Fairlawne, Tonbridge, for *Cairncosh Jilt*, H. C.—973, 974.

Class 109.—Shorthorn Heifers (in-milk), calved in 1912. [10 entries.]

- 977 I. (210).—HIS MAJESTY THE KING, Royal Farms, Windsor, for *Rose of Freemore* (vol. 58, p. 341), light roan, born Feb. 20, calved Oct. 23, 1913; s. *Royal Hero* 105146, d. *Rose of Lancaster* by Enchanter 85387.
- 978 II. (26).—R. J. BALSTON, Bilsington Priory, Ashford, Kent, for *Bess of Bilsington* (vol. 58, p. 381), roan, born Feb. 4, calved April 11, 1914; s. *Golden Chorus* 105146, d. *Bess* 9th by Royal Prince 33258.
- 986 III. (24).—T. E. WATSON, Gateshead, Newport, Mon., for *Beatrice* 4th by 1.5 s. 105146, roan, born Jan. 14, calved Feb. 4, 1914; s. *Wanderer's Chief* 80210, d. *Beatrice* 2nd by Duke of Tyne 74425.
- 985 E. N. & H. C.—COLONEL FAIRFAX RHODES, Brockhampton Park, Andover, Hants, for *Cotehay Beauty* 2nd, H. C.—983.

Class 110.—Shorthorn Heifers, calved on or between January 1, 1912, and March 31, 1912. [6 entries.]

- 987 I. (210).—HIS MAJESTY THE KING, Royal Farms, Windsor, for *Elizabeth* (vol. 58, p. 399), dark roan, born Mar. 14; s. *Cowslip King* 105146, d. *Ella* 4th by *Pride of Arden* 9878.
- 989 II. (26).—GEORGE HARRISON, Gainford Hall, Darlington, for *Gainford Rosemary* (vol. 58, p. 730), roan, born Jan. 2; s. *Proud Broadbooks* 105782, d. *Rosemary* 12th by *Sterling Character* 95283.
- 984 III. (24).—HIS MAJESTY THE KING for *Muriel* 2nd (vol. 58, p. 399), light roan, born Feb. 6; s. *Earl of March* 102126, d. *Muriel* by Royal Windsor 93289.
- 990 E. N. & H. C.—C. W. KELLOCK, Highfields, Audlem, Cheshire, for *Highfields Barrington* 5th, H. C.—991.

Class 111.—Shorthorn Heifers, calved on or between April 1, 1912, and December 31, 1912. [10 entries.]

- 993 I. (210). & E. N. for *Champion* 2.—W. M. CAZALET, Fairlawne, Tonbridge, for *Butterfly* 64th (vol. 50, p. 1050), roan, born April 5, bred by George Watson, Old Craig, Warrle; s. *Lord Advocate* 106002, d. *Butterfly* 55th by *Sir Edon* 87375.
- 994 II. (26).—RICHARD CORNELIUS, Bankfields, Eastham, Cheshire, for *Bankfields Jewel* (vol. 58, p. 621), roan, born June 25; s. *Village Beau* 87691, d. *Aldsworth Phantom* by *Aldsworth Jasper* 95149.
- 995 III. (24).—J. H. DEAN & SONS, Heath House, Nacton, Lincoln, for *Heath Countess* (vol. 59, p. 644), roan, born July 15; s. *Dowsby West Craigs* 108441, d. *Mere Duchess* 2nd by *Harvest King* 91950.
- 999 IV. (23).—SIR HERBERT LEON, BT., Bletchley Park, Bucks., for *Princess Royal Betty* (vol. 59, p. 820), red, born Sept. 16; s. *Coming Storm* 108242, d. *Notlaw Phantom* by *Notlaw Phobus* 96357.
- 996 E. N. & H. C.—C. E. GUNTHER, Tongwood, Hawkhurst, Kent, for *Tongwood Missie* 3rd, H. C.—997.

Class 112.—Shorthorn Heifers, calved on or between January 1, 1913, and March 31, 1913. [25 entries.]

- 1027 I. (210).—LORD SHERBORNE, Sherborne Park, Northleach, for *Lady of the Lake*, white, born Feb. 8, bred by Lord Richard Cavendish, Holker Hall, Carnarvon; s. *Guthorne Model* 108255, d. *Holker Waterloo* 5th (vol. 57, p. 367), by *Holker Baron* Oxford 615 95497.
- 1003 II. (26).—HIS MAJESTY THE KING, Royal Farms, Windsor, for *Windsor Gem*, roan, born Feb. 10; s. *Proud Jubilant* 106357, d. *Matilda* (vol. 56, p. 320) by *Marcus* 89233.
- 1008 III. (24).—JOHN GILL, Thurn Farm, Stainton, Donrith, for *Nelly Lee*, red and little white, born Jan. 30, bred by Joseph Lee, Congilton, Drem; s. *Birdsall Brar* 101545, d. *Nellie* 9th (vol. 58, p. 590) by *Ascent Royal* 104568.
- 1016 IV. (23).—SIR HERBERT LEON, BT., Bletchley Park, Bucks., for *Augusta Mermaid*, red and white, born Jan. 10; s. *Coming Storm* 108242, d. *Augusta Maid* (vol. 57, p. 903) by *Bletchley Silver* 101570.

¹ Prizes given by the Shorthorn Society.
² Champion Prize of £20 given by the Shorthorn Society for the best Cow or Heifer in Classes 108-113 and 117-119. A Prize of £10 is given by a Member of the R.A.S.E. and a Silver Medal by the Shorthorn Society to the Breeder of the Champion Cow or Heifer.

Award of Live Stock Prices at Shrewsbury, 1914. 1855

(Unless otherwise stated, each prize animal named below was bred by exhibitor.)

- 1035 V. (23.)—SIR WALPOLE GREENWELL, BT., Marden Park, Wottonham, Surrey, for **Marden Fern** 3rd, red roan, born Feb. 7; s. Prince of Saxony d. 1905, s. Chiddingstone Fern (vol. 56, p. 727) by Ascott Constellation 55181.
 1036 R. N. & H. C.—W. M. CAZALET, Fairlawne, Tonbridge, for **Augusta Hith**, H. C.—1017, 1026. C.—1015.

Class 113.—Shorthorn Heifers, calved on or between April 1, 1913, and December 31, 1913. [23 entries.]

- 1037 I. (210.)—CAPTAIN CLIVE BEHRENS, Swinton Grange, Malton, for **Countess Swinton**, white, born May 16; s. Swinton Saint 11968, d. Village Countess vol. 55, p. 343, s. by Village Beau 87531.
 1038 II. (26.)—SIR HERBERT LEON, BT., Hatchley Park, Bucks., for **Lavender Beauty**, roan, born April 20; s. Coming Storm 106242, d. Lavender Leaf vol. 48, p. 360, s. Silver Mint 38968.
 1039 III. (24.)—SIR HERBERT LEON, BT., for **Clipper Queen**, roan, born Aug. 12; s. Coming Storm 106242, d. Clipper Duchess 3rd vol. 55, p. 1151, s. Roy d. Crown 95201.
 1040 IV. (23.)—THE EARL OF POWIS, Powis Castle, Welshpool, for **Powysland Snow drop**, white, born April 6; s. Beaufort Speciality 110890, d. Powysland Green vol. 55, p. 1070, by Mealsgate Vicar 10911.
 1041 V. (23.)—W. M. CAZALET, Fairlawne, Tonbridge, for **Fairlawne Clipper**, roan, born May 3; s. White Campbell 104406, d. Elvetham Clipper 3rd vol. 56, p. 313, s. Lavender Royal 98381.
 1042 R. N. & H. C.—CAPTAIN CLIVE BEHRENS, for **Swinton Mary**, C.—1030, 1037.

Class 114.—Group Class, consisting of either three or four Shorthorn Cows or Heifers, bred by Exhibitor. [10 entries.]

- 987, 988, 1003 I. (215.)—HIS MAJESTY THE KING, for **Elizabeth**, Murel 2nd, and **Windsor Gem**.
 972, 994, 1005 II. (210.)—RICHARD CORNELIUS, for **Bankfields Belle**, **Bankfields Jewel**, and **Charity Girl**.
 999, 1016, 1043, 1044 R. N. & H. C.—SIR HERBERT LEON, BT., for **Princess Royal Betty**, **Augusta Mermaid**, **Clipper Queen**, and **Lavender Beauty**.

Dairy Shorthorns.

Class 115.—Shorthorn Bulls, calved in 1913. [7 entries.]

- 1054 I. (210.)—R. W. HOBBS & SONS, Kelmescott, Lechlade, for **Kelmescott Juggler** 116052, red roan, born April 2; s. Trickster 4th 11868, d. Hawthorn 5th by Village Lad 38746.
 1055 II. (28.)—ROBERT HEATH, Biddulph Grange, Biddulph, Staffs., for **Puddington Rosador**, roan, born April 26th, bred by Samuel Sanday, Puddington Hall, Chester; s. Oxford Record 106450, d. Red Rose 5th vol. 55, p. 1140, by Wild Prince 3th, 2d, 1st.
 1057 III. (24.)—CAPTAIN ARNOLD S. WILKS, Thornby Hall, Northampton, for **Drusus** 115142, dark roan, born Aug. 12, bred by Lord Rodolph, Tring Park, Herts.; s. Ranger 103487, d. Dorothy by Wild Boy 74182.
 1056 R. N. & H. C.—W. E. ROWLANDS, Llyn-y-nn Hall, Rhyll, for **Knowsley Favour**.
 1054, 1126, 1140 (Cup.)—R. W. HOBBS & SONS, for **Kelmescott Juggler**, **Spotless Mat** and **Rose 53rd**.
 H. C. 1052, 1055.

Class 116. Shorthorn Bulls, calved in 1913. [23 entries.]

- 1068 I. (210.)—SAMUEL SANDAY, Puddington Hall, Chester, for **Darlington Minor**, dark roan, born July 9; s. Oxford Record 106450, d. Darlington 4th vol. 56th vol. 55, p. 1230, by Salmon's Premier 90629.
 1058 II. (26.)—C. R. W. ADEANE, Babraham Hall, Cambridge, for **Babraham Fascinator**, roan, born May 16; s. Broad-by's Coming Star 107391, d. Babraham Fox vol. 56, p. 420, by Knight of Ivanhoe 82467.
 1063 III. (24.)—E. S. GODSELL, Salmon's Brewery, Strand, for **Salmon's Premier**, roan, born July 9; s. Salmon's Dairy Duke 113236, d. Puddington Pippin vol. 56, p. 1140, by Grand Prince 106442.
 1069 IV. (23.)—SAMUEL SANDAY, for **Puddington Goldmine**, red roan, born Feb. 15; s. Oxford Record 106450, d. Buttercup vol. 56, p. 311, by Fishcreeper 81541.
 1061 V. (23.)—J. A. ATTWATER, Dry Leaze, Cirencester, for **Goldin**, roan, born March 12; s. Lord Pallard 109213, d. Fairy Queen vol. 57, p. 454, by Phœnix 15271.

1 Prize given by the Shorthorn Society.

2 Prizes given by the Dairy Shorthorn (Cotes's Herd Book) Association.

3 Challenge Cup given through the Dairy Shorthorn (Cotes's Herd Book) Association for the best Group of one Bull and two Cows or Heifers in Classes 115-119. Two at least of the animals must have been bred by exhibitor.

lxxvi *Award of Live Stock Prizes at Shrewsbury, 1914.*

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

- 1073 **R. N. & H. C.**—**J. M. STRICKLAND**, Warren House, Brandsby, Easingwold, for *Brandsby's Coming Star* 4th.
 1068, 1108, 1158 (R. N. for Cup.)—**SAMUEL SANDAY**, for *Darlington Minor*, Duke's Daisy 2nd, and *Furbelow Queen*.
H. C.—1064, 1070, 1074, 1077, 1080. **C.**—1065, 1067, 1071, 1072.

Class 117.—*Shorthorn Dairy Cows (in-milk), calved in or before 1909.*
 [40 entries.]

- 1094 **I. (£10, & Champion.)**—**LORD LUCAS**, Wrest Park, Ampthill, for *Primrose Girl* (vol. 58, p. 145), roan, born March 25, 1896, calved May 1, 1914, bred by John Lucas, Heskot End, Winton; s. Good Gift 91888, d. British Primrose by British Knight 91888.
 1099 **II. (£6.)**—**J. ELLIS POTTER**, Moor Hall, Aughton, Ormskirk, for *Miss Foggathorpe* (vol. 56, p. 516), roan, born Aug. 1, 1909, calved May 23, 1914, bred by the Rev. C. H. Brocklebank, Bartlow, Cambridge; s. Salmon's Freemason 106526, d. Flora Fox, a Thorpe 2nd by Wild Prince 9th 76178.
 1103 **III. (£4.)**—**SAMUEL SANDAY**, Puddington Hall, Chester, for *Duke's Daisy* 2nd (vol. 56, p. 112), dark roan, born Feb. 3, 1909, calved June 17, 1914, bred by S. C. Piddock, The Outwoods, Hinkley; s. Fairy Duke 6th 83834, d. Newbold Daisy by Newbold Baron 71062.
 1091 **IV. (£3.)**—**R. W. HOBBS & SONS**, Kelmescott, Lechlade, for *Rose 43rd* (vol. 57, p. 822), red, born Sept. 17, 1907, calved April 28, 1914; s. Kelmescottonian 18th 92904, d. Rose 56th by Trojan 73777.
 1101 **V. (£3.)**—**LORD ROTHSCHILD**, Tring Park, Herts., for *Lady Bowness* (vol. 56, p. 634), roan, born May 19, 1904, calved June 21, 1914, bred by T. Furness, Seagagh Dyke, Calthwaite, Carlisle; s. Crystal Fawley 83226, d. Lady Jane 3rd by Majestic 72872.
 1081 **R. N. & H. C.**—**C. R. W. ADEANE**, Babraham Hall, Cambridge, for *Babraham Countess Clara*.
H. C.—1085, 1092, 1108, 1114, 1118. **C.**—1097, 1190.

Class 118.—*Shorthorn Dairy Cows (in-milk), calved in 1910.* [16 entries.]

- 1126 **I. (£10, & R. N. for Champion.)**—**R. W. HOBBS & SONS**, Kelmescott, Lechlade, for *Spotless 31st* (vol. 57, p. 823), red, born Sept. 3, calved June 9, 1914; s. Village Swell 8th 87660, d. Spotless 30th by Kelmescottonian 18th 92904.
 1123 **II. (£8.)**—**THE EARL OF DERBY**, Knowsley, Prescot, for *Nelly Lee 32nd* (vol. 57, p. 1147), light roan, born Mar. 30, calved June 11, 1914, bred by J. W. Sanders, Gilmorton, Lutterworth; s. Harbour Victor 69067, d. Nelly Lee 36th by Duke of Keythorpe 78747.
 1120 **III. (£4.)**—**HERBERT H. OWTRAM**, Newland Hall, Lancaster, for *Dolphinlee Rosebud* (vol. 57, p. 844), roan, born Jan. 30, calved June 15, 1914, bred by Thomas Hunter, Dolphinlee Farm, Lancaster; s. Bulk Duke 94484, d. Rosebud 3rd by Silver King 72867.
 1122 **IV. (£3.)**—**J. L. CROSS**, Catthorpe, Rugby, for *Turner 18th* (vol. 57, p. 1137), white, born Oct. 17, calved May 19, 1914, bred by Lord Rothschild, Tring Park, Herts.; s. Dreadnought 102049, d. Turner 15th by Baron Bates 82779.
 1125 **V. (£3.)**—**R. W. HOBBS & SONS**, for *Laura 21st* (vol. 59, p. 756), roan, born Oct. 14, calved June 7, 1914; s. M. C. 12th 106182, d. Laura 14th by Village Lad 83746.
 1124 **R. N. & H. C.**—**E. S. GOSSELL**, Salmon's Brewery, Stroud, for *Puddington Pippin*.
H. C.—1121, 1128, 1133, 1135. **C.**—1130, 1131, 1136.

Class 119.—*Shorthorn Dairy Heifers (in-milk), calved in or after 1911.*
 [26 entries.]

- 1146 **I. (£10.)**—**R. W. HOBBS & SONS**, Kelmescott, Lechlade, for *Rose 53rd* (vol. 58, p. 669), red, born Aug. 12, 1911, calved April 27, 1914; s. Royal Proctor 110029, d. Rose 44th by Trojan 20th 90325.
 1145 **II. (£8.)**—**R. W. HOBBS & SONS**, for *Helpmate 15th* (vol. 59, p. 755), white, born Dec. 18, 1911, calved June 12, 1914; s. Kelmescott Tarquin 105853, d. Helpmate 11th by Baron Waterloo 94220.
 1148 **III. (£4.)**—**LORD LUCAS**, Wrest Park, Ampthill, for *Doreen* (vol. 58, p. 903), red, born April 27, 1911, calved May 4, 1914, bred by Lord Rothschild, Tring Park, Herts.; s. Foundation Stone 105524, d. Doreen by Conjuror 91319.
 1154 **IV. (£3.)**—**LORD ROTHSCHILD**, Tring Park, Herts., for *Pretty Lass* (vol. 58, p. 804), red and little white, born Aug. 19, 1911, calved April 9, 1914; s. Dreadnought 102049, d. Beauty by Cow 12nd 105145.

¹ Challenge Cup given through the Dairy Shorthorn (Coates's Herd Book) Association for the best Group of one Bull and two Cows or Heifers in Classes 115-119. Two at least of the animals must have been bred by exhibitor.

² Prizes given by the Shorthorn Society.

³ Champion Prize of £10 given by the Dairy Shorthorn (Coates's Herd Book) Association, for the best Cow or Heifer in Classes 117-119.

Award of Live Stock Prices at Shrewsbury, 1914. lxxvii

[Unless otherwise stated, each prize animal named below was bred by exhibitor.]

- 1152 **V. (42).**—**LORD ROTHSCHILD**, for **Linda Fairy** oval, 58, p. 58, red and little white, born Jan. 15, calved April 12, 1914, bred by George Gerrard, jun., Offerton, Hereford; Worcester; s. Northern Star 9290, d. Lady Linda by Dragon Fairy 5755.
- 1153 **B. N. & H. C.**—**SAMUEL SANDAY**, Puddington Hall, Chester, for **Furbelow Queen**, H. C.—1155, 1157, 1161. C.—1149, 1151.

Class 120.—*Milk Yield Prizes, open to Shorthorn Cows and Heifers entered in Classes 108, 109, 117, 118, and 119 only.* [32 entries.]

- 1086 **I. (410).**—**JOHN DARGUE**, Burnside Hall, Kendal, for **Border Lady 2nd** oval, 57, p. 1300, roan, born Feb. 12, 1906, calved June 22, 1911; bred by Isaac Wren, Little Crosthwaite, Keswick; s. Farmer's Glory 8561, d. Border Lady by New Years Promise 73137.

- 1091 **II. (428).**—**R. W. HOBBS & SONS**, for **Rose 13rd**. (See Class 117.)
- 1092 **III. (44).**—**R. W. HOBBS & SONS**, for **Solo 50th** oval, 55, p. 799, red, born Dec. 30, 1905, calved May 31, 1914; s. Red Waterloo 6th 8234, d. Solo 50th by Royaldy 23d 67845.

H. C.—1066, 1067, 1107, 1108, 1115, 1122, 1129.

Shorthorn Dairy Cattle.

[Not eligible for *Cotter's Herd Book* or the *Lincolnshire Red Shorthorn Herd Book*.]

Class 121.—*Shorthorn Dairy Cows, in-milk, calved in or before 1910.* [12 entries.]

- 1167 **I. (410).**—**R. W. HOBBS & SONS**, Kelmseott, Leckhade, for **Helpmate 11th**, roan, born Oct. 24, 1908, calved June 3, 1911; s. Baron Waterloo 2K29, d. Helpmate 1th by Trojan 73177.

- 1168 **II. (428).**—**THOMAS COOKE GOODWIN**, Henhull Hall, Nantwich, for roan, calved June 18, 1914.

- 1172 **III. (44).**—**JAMES SHEPPY**, Redlynch Park, Chewton Keynsham, Bristol, for **Model Maid**, red and white, born Dec. 21, 1905, calved June 21, 1911; s. Culet 8365, d. Daisy Belle by Bapton Victor's Champion 74084.

- 1163 **IV. (43).**—**THE EARL OF DERRY**, Knowsley, Prescot, for **Mary**, calved June 21, 1914.

- 1171 **B. N. & H. C.**—**JAMES SHEPPY**, for **Chewton Beauty 5th**.

H. C.—1173.

Class 122.—*Shorthorn Dairy Heifers, in milk, calved in or after 1911.*

[No entry.]

Lincolnshire Red Shorthorns.²

Class 123.—*Lincolnshire Red Shorthorn Bulls, calved in 1908, 1909, 1910, or 1911.* [6 entries.]

- 1179 **I. (410, & Champion.³)**—**FRANK B. WILKINSON**, Cavendish Lodge, Edwinstowe, Newark, for **Saltfleet Polar Star 3228**, born November 1, 1911, bred by F. H. B. Froehney, Graftonhorpe, S.O.; s. Rising Star 7839, d. by Saltfleet Bonus 5882.

- 1180 **II. (428).**—**J. G. WILLIAMS**, Donley Manor, Tring, for **Croston Ruby 33rd 8629**, born Sept. 22, 1911, bred by Frank Bourne Croston House, Brackley; s. Scampton King of the Tribes 7122, d. by Neptune 2nd 627.

- 1178 **III. (44).**—**NEWTON CHAMBERS & CO. LTD.**, Thorncliffe Iron Works, near Sheffield, for **Poolham Dream 2253**, born March 5, 1911, bred by Thomas Bell, Poolham Hall, Horncastle; s. Kedlington Searchlight 4853, d. by Leybourne Conqueror 4901.

H. C.—1176.

Class 124.—*Lincolnshire Red Shorthorn Bulls, calved in 1912.*

[4 entries.]

- 1182 **I. (410, & R. N. for Champion.³)**—**JOHN EVANS**, Barton, Lincoln, for **Yarboro' Scamp 10406**, born Oct. 4, bred by E. Bourne, Yarborough; s. Saltfleet Marchman 4986, d. by Nurbury Cato 2993.

- 1184 **II. (428).**—**LIEUT. M. A. KENNARD, R.N.**, Beoley Hall, B-4 Hatch, for **Beoley Searchlight 8757**, born Feb. 9; s. Kedlington Searchlight 4853, d. Beoley Milkmaid 1-4 by Brandon Grenadier 4274.

- 1183 **III. (44).**—**BART FRYVILLIAM**, Wentworth, Rotherham, for **Wentworth Marvel 8452**, born in April, bred by J. and G. W. Brown, Hagmaby House, Alford; s. Hagmaby Dell Marvel 6850, d. by Hagmaby Champion 4847.

- 1181 **B. N. & H. C.**—**LAWIS ALLBONES**, High Farm, Wetherborough, Lincoln, for **Saltfleet Jupiter**.

¹ Prizes given by two Members of the R.A.S.E.

² £80 towards these Prizes were given by the Lincolnshire Red Shorthorn Association.

³ Champion Prize of £10 given by the Lincolnshire Red Shorthorn Association for the best Bull in Classes 123-125.

lxxviii Award of Live Stock Prizes at Shrewsbury, 1914.

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."]

Class 125.—Lincolnshire Red Shorthorn Bulls, calved in 1913. [7 entries.]

- 1185 I. (£10.)—CHARLES F. BETT, Springfield, Benniworth, Lincoln, for *Normanby Banniworth* 10983, born April 19, bred by J. Byron, Normanby, Lincoln; s. *Scampton Luctanus* 3675, d. *Stenigot Daisy* 20th by Red Chief 2811.
- 1191 II. (£6.)—LIEUT.-COL. HAROLD TAGART, D.S.O., Old Sneed Park, Brierley, Sneed Scampton 10211, born May 26; s. *Scampton King of the Valley* 7123, d. *Benniworth Pink* by *Somercotes Bonus* 487.
- 1187 III. (£4.)—JOHN EVENS, Burton, Lincoln, for *Risby Nonsuch* 10163, born May 2, bred by H. Abraham, Risby, Tealby, Lincoln; s. *Bonby Emperor* 638, d. *Dunsby Sentinel* 1535.
- 1188 R. N. & H. C.—J. W. FARROW & SONS, Strubby Manor, Alford, for *Strubby Guarero*, H. C.—1190.

Class 126.—Lincolnshire Red Shorthorn Cows (in-milk), calved in or before 1910. [10 entries.]

- 1201 I. (£10, & Champion.)—J. G. WILLIAMS, Pendley Manor, Tring, for *Pendley Skipworth* (vol. 15, p. 352), born March 23, 1907, calved Feb. 16, 1914; s. *Keddington*, Burton 4891, d. *Keddington Skipworth* 5th by *Benniworth* 4th 629.
- 1192 II. (£6, & R. N. for Champion.)—AUGUSTUS P. BRANDT, Bletchingley Castle, Surrey, for *Deeping Jessie* (vol. 18, p. 258), born April 6, 1906, calved Jan. 7, 1914, bred by John Seary, Croft, Wainfleet; s. *Croft Sunrise* 3831, d. by *Calceby Mare*; 2453.
- 1200 III. (£4.)—J. G. WILLIAMS, for *Pendley Princess* (vol. 17, p. 357), born in Aug., 1909, calved June 8, 1914, bred by T. B. Freshney, South Somercotes, Louth; s. *Grange Prince* 4638, d. *Salfleet Bona* by *Salfleet Bonus* 3382, H. C.—1198, 1197.

Class 127.—Lincolnshire Red Shorthorn Cows or Heifers (in-milk), calved in or before 1911, showing the best milking properties. [8 entries.]

- 1202 I. (£10.)—JOHN EVENS, Burton, Lincoln, for *Burton Diamond* (vol. 19, p. 314), born Feb. 8, 1906, calved May 18, 1914, bred by Major G. A. Brown, Maidenwell Hall, Louth; s. *Yerborough Count* 819, d. by *Upphall* 2384.
- 1208 II. (£6.)—CHARLES F. SCORER, Whitehall, Bracebridge Heath, Lincoln, for *Bracebridge No. 94B* (vol. 14, p. 291), born March 1, 1906, calved March 8, 1914, bred by Fred Scorer, Sudbrook, Lincoln; s. *Welbourne Red Baron* 3893, d. *Bracebridge No. 100* by *Baron Ormsby* 2nd 25.
- 1204 III. (£4.)—JOHN EVENS, for *Burton Sweetbriar* (vol. 20, p. 315), born in May, 1908, calved June 11, 1914, bred by William Twigg, Malthby, Alford; s. *Strubby Buck* 1233, d. by *Tothby Rising Star* 2688.

Class 128.—Lincolnshire Red Shorthorn Heifers (in-milk), calved in 1911. [7 entries.]

- 1212 I. (£10.)—JOHN EVENS, Burton, Lincoln, for *Burton Horkstow Lady* 1st (vol. 19, p. 314), born Feb. 23, calved May 22, 1914, bred by W. B. Swallow, Wootton Lawn, Uleby; s. *Scampton Hermes* 4972, d. *Horkstow Nareissus* by *Bonby Kinsman* 3rd 4621.
- 1210 II. (£6.)—AUGUSTUS P. BRANDT, Bletchingley Castle, Surrey, for *Bletchingley Doree* (vol. 18, p. 258), born April 22, calved May 3, 1914; s. *Scampton Exile* 4082, d. *Fulleyby Treasure* 3rd by *Scampton Formula* 4562.
- 1211 III. (£4.)—AUGUSTUS P. BRANDT, for *Sherwood Lady* (vol. 18, p. 339), born Feb. 1, calved Jan. 4, 1914, bred by Frank B. Wilkinson, Cavendish Lodge, Edwinstowe, Newark; s. *Dunsby Red* 3rd 6017, d. *Stenigot Daisy* 17th by *Ashby Red* 2nd 3728.
- 1216 R. N. & H. C.—J. G. WILLIAMS, Pendley Manor, Tring, for *Pendley Mablethorpe Daisy*.

Class 129.—Lincolnshire Red Shorthorn Heifers, calved in 1912. [7 entries.]

- 1221 I. (£10.)—FRANK B. WILKINSON, Cavendish Lodge, Edwinstowe, Newark, for *Normanby Felicia* 2nd (vol. 20, p. 331), born Jan. 27, bred by John Byron, Normanby, Lincoln; s. *Scampton Excursionist* 4089, d. *Normanby Felicia* by *Croft Marvel* 5629.
- 1223 II. (£6.)—J. G. WILLIAMS, Pendley Manor, Tring, for *Pendley Rose* (vol. 19, p. 381), born Feb. 24, bred by W. B. Swallow, Wootton Lawn, Uleby; s. *Scampton Lusury* 7841, d. *Horkstow Lillie* by *Bumper* 2nd 173.
- 1217 III. (£4.)—AUGUSTUS P. BRANDT, Bletchingley Castle, Surrey, for *Bletchingley Europa* (vol. 19, p. 288), born March 22; s. *Bletchingley Brennus* 4563, d. *Fulleyby Treasure* 2nd by *Scampton Formula* 4562.
- 1222 R. N. & H. C.—J. G. WILLIAMS, for *Pendley Duchess*, H. C.—1218.

¹ Champion Prize of £10 given by the Lincolnshire Red Shorthorn Association for the best Cow or Heifer in Classes 126-130.

Award of Live Stock Prizes at Shrewsbury, 1914. LXXIX

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

Class 130.—*Lincolnshire Red Shorthorn Heifers, calved in 1913.*

[10 entries.]

- 1281 I. (410).—FRANK B. WILKINSON, Cavenish Lodge, Edwinstowe, Newark, for Music, born Jan. 24, bred by John Byron, Normanby, Lincoln; s. Scampton Lichuanus 7515, d. Normanby Music by Red Chalk 6755.
 1282 II. (46).—J. G. WILLIAMS, Pendley Manor, Tring, for Pendley Ruby 3rd, born July 22; s. Salfleet Ruby Champion 4502, d. Salfleet Ruby 2nd (calv. 12), s. 340 by Pitcher of Wick (3420).
 1283 III. (44).—AUGUSTUS P. BRANDT, Bitchingley Castle, Surrey, for Tothby Ruby, calv. 20, p. 200; born April 23, bred by G. J. Brown, Tothby Manor, Alford; s. Hockstownian Hercules 7668, d. Tothby Twilight by Salfleet Diamond 601.
 1284 R. N. & H. C.—J. G. WILLIAMS, for Pendley Countess 2nd.
 H. C.—1227.

Class 131.—*Milk Yield Prizes, open to Lincolnshire Red Shorthorn Cows and Heifers entered in Classes 126, 127 and 128 only.* [14 entries.]

- 1285 I. (410).—JOHN EVENS, for Burton Diamond. (See Class 127.)
 1286 II. (46).—JOHN EVENS, for Burton Pride 7th (calv. 17), p. 250, born in March, 1905, calved June 1, 1913, bred by Wm. Bygott, Wythall, Leicestershire; s. Burton Pride 21st, d. 1, Ruby Red 2nd 384.
 1287 III. (44).—CHARLES E. SCORER, for Bracebridge No. 94 B. (See Class 127.)
 H. C.—1204, 1209.

Herefords.¹

Class 132.—*Hereford Bulls, calved in 1909, 1910, or 1911.* [7 entries.]

- 1288 I. (410, & Champion).—HIS MAJESTY THE KING, Royal Farms, Windsor, for Avondale 29008, born Jan. 2, 1910, bred by His Majesty King Edward VII.; s. Admiral 2256, d. Elsie by Lord Lieutenant 2323.
 1289 II. (46).—THE EARL OF COVENTRY, Croome Court, Worcester, for Irington Bright 2838, born Jan. 19, 1910, bred by J. R. Hydon, Clapps House, Irington, Leominster; s. President 2687, d. Mirror 3rd by Harold 2290.
 1290 III. (44).—G. H. BRAY, Dormington Court, Hereford, for Broadheath Maxim 2853, born March 18, 1911, bred by T. Powell, Lower Broadheath, Hereford; s. Langhorn 2667, d. Pansy by Maxim 2190.
 1291 R. N. & H. C.—THE HON. F. G. WYNN, Bodfcan Hall, Pwllheli, for Sentry.
 H. C.—1238. G.—1296, 1237.

Class 133.—*Hereford Bulls, calved in 1912.* [13 entries.]

- 1292 I. (410, & R. N. for Champion).—W. B. TUDOR, Steapside, Oudry, Salop, for Renown 30027, born Jan. 6, bred by G. H. Bray, Dormington, Hereford; s. Cornice 2523, d. Rubelle by Royal Rupert 2876.
 1293 II. (46).—T. L. WALKER, Ankerdine, Knightwick, Worcester, for Court Card 2963, born Jan. 15, bred by Arthur P. Turner, The Leven, Pembroke; s. Montecarlo 2766, d. Charbel by Mortimer 2677.
 1294 III. (44).—THE EARL OF COVENTRY, Croome Court, Worcester, for Valet 3012, born Jan. 25; s. Dollymount 2760, d. Valise by Maxwell 2165.
 1295 IV. (43).—CHARLES T. PULLBY, Lower Eaton, Hereford, for Eaton Prospect 2681, born March 13; s. Eaton Masterpiece 2313, d. Loyalty 2nd by Eaton Defender 1210 2002.
 1296 R. N. & H. C.—RALPH T. HINCKES, Mansel Court, Mansel Lacy, Herefordshire, for Sancho.
 H. C.—1248. C.—1241, 1242.

Class 134.—*Hereford Bulls, calved in January or February, 1913.*

[35 entries.]

- 1297 I. (410).—GEORGE BUTTERS, Hill House, Newton, Leominster, for Newton Albon, born Jan. 4; s. Baronet 2875, d. Gayline 2nd (calv. 4), p. 200, by Salin Prince 2655.
 1298 II. (46).—HENRY J. DENT, Perton Court, Stoke Edith, Herefordshire, for Perton Loyalist, born Feb. 19; s. Time Test 2652, d. Lively 20th (calv. 14), p. 351, by Peer 1980.
 1299 III. (44).—GEORGE BUTTERS, Hill House, Newton, Leominster, for Newton Viscount, born Jan. 22; s. Baronet 2875, d. Lady 3rd (calv. 14), p. 200, by Salin Prince 2655.
 1300 IV. (43).—SIR J. R. G. COTTEBELL, BT, Garmans, Hereford, for Ambassador, born Jan. 15; s. Administrator 2728, d. Ladylove (calv. 43), p. 288, by Old Sport 2626.
 1301 V. (43).—DE F. PENNYFATHER, Kimmerley Castle, Eardisley, Herefordshire, for Ringleader 2nd, born Jan. 2; s. Newton Edward 2823, d. Ringlet (calv. 44), p. 350, by Baronet 2656.
 1302 R. N. & H. C.—KENNETH W. MILNES, Stanway Manor, Churchstretton, for Flying Fox.
 H. C.—1269, 1260, 1273, 1283. C.—1260, 1261, 1266, 1271, 1261.

¹ £110 towards these Prizes were given by the Hereford Herd Book Society and £50 by the Shrewsbury Local Committee.
² Champion Prize of £10 10s. given by the Hereford Herd Book Society for the best bull in Classes 132-136.

lxxx *Award of Live Stock Prizes at Shrewsbury, 1914.*

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

Class 135.—Hereford Bulls, calved in 1913, on or after March 1. [20 entries.]
 1294 I. (£10).—HENRY J. DENT, Perton Court, Stoke Edith, Herefordshire, for *Pertion Grateful*, born March 1: s. Time Test 26529, d. Perton Graceful (vol. 41, p. 26529) Perton 2nd 26375.

1291 II. (£5).—SIR J. R. G. COTTERELL, BT., Garnons, Hereford, for *Adventurer*, born March 2: s. Administrator 27298, d. Aurora (vol. 44, p. 340) by Priam 23671.
 1307 III. (£4).—WILLIAM SMITH, Bidney, Dilwyn, Herefordshire, for *Bidney Bear*, born March 24: s. Kinsham Star 26397, d. Bride (vol. 44, p. 838) by Rambler 26429.

1296 IV. (£3).—HENRY R. EVANS, Court of Noke, Pembroke, for *Monte Cristo*, born March 22: s. Marcus 27005, d. Edna (vol. 44, p. 400) by Gilderey 26653.

1305 V. (£3).—DE F. PENNEFATHER, Kinnersley Castle, Eardisley, Herefordshire, for *Happy Ringer*, born March 3: s. Kingmaster 26840, d. Happy Violet (vol. 44, p. 708) by Happy Christmas 21442.

1298 E. N. & H. C.—THOMAS HARRIS, The Sheriffs, Kingston, for *Sheriffs Surprise*, H. C.—1292, 1303. C.—1297, 1302, 1304.

Class 136.—Hereford Bulls (Novice), calved in 1913. [19 entries.]

1318 I. (£10).—FRED FITCH MASON, The Faraam, Killay, Glam., for *Faraam Archie*, born Jan. 26: s. Avondale 28867, d. Mimosa (vol. 44, p. 619) by Surprise 25210.

1310 II. (£6).—HUGH A. CHRISTY, Llangoed Castle, Llysawen, Breconshire, for *Sailor*, born Jan. 5, bred by Major W. B. Mynors, Evanceoyd, Kingston: s. Mariner 25801, d. Silvia (vol. 44, p. 681) by Parton 23440.

1315 III. (£4).—W. H. LANGFORD, Chirbury Hall, Salop, for *Corndon Jorrocks*, born Jan. 25: s. Columbus 26292, d. Corndon Duchess 2nd (vol. 42, p. 621) by Blismark 24115.

1317 IV. (£3).—T. S. LUCE, Wetmore, Onibury, Salop, for *Wetmore Sultan*, born March 9: s. Hodenham Leo 26804, d. Sultana (vol. 44, p. 606) by Tenor 25016.

1311 V. (£3).—C. B. CRANSTOUN, Coston Hall, Aston-on-Clun, for *Twyford Don*, born Jan. 28, bred by S. C. Hayter, Twyford, Pembroke; s. Eaton Don 27611, d. Topsy (vol. 44, p. 498) by Lord Lieutenant 22323.

1325 E. N. & H. C.—A. J. SMALL, The Cinders, Tenbury, for *The Doctor*, H. C.—1322, 1324. C.—1308, 1327.

Class 137.—Group Class, consisting of three Hereford Bulls, bred by Exhibitor. [12 entries.]

1256, 1257, 1260 I. (£10).—GEORGE BUTTERS, for *Newton Albion*, *Newton Viscount*, and *Newton Marquis*.

1258, 1259, 1291 II. (£6).—SIR J. R. G. COTTERELL, BT., for *Ambassador*, *Thumper*, and *Adventurer*.

1278, 1280, 1305 III. (£4).—DE F. PENNEFATHER, for *Prize Ring*, *Ringleader* 2nd, and *Happy Ringer*.

1243, 1244, 1260 E. N. & H. C.—THE EARL OF COVENTRY, for *Gadshill*, *Vallet*, and *Dollar*, H. C.—1261, 1262, 1263; 1246, 1272, 1314; 1278, 1302, 1303.

Class 138.—Group Class, consisting of Hereford Bull and One, and their offspring calved in 1914. [7 entries.]

1329 I. (£15).—J. G. COOKE-HILL, Shelsley Bank, Stanford Bridge, Worcester, for *Cameron* 28125, born Jan. 12, 1910, bred by Captain E. L. A. Heygate, Buckland, Leominster: s. Highland Prince 25437, d. Ivy by Steelclad 17567; *Eleanor* (vol. 44, p. 335), born Feb. 26, 1907, bred by W. H. Cooke: s. Gambler 26639, d. Cow-lip by Ruler 16365; and bull calf, born Jan. 17, 1914.

1332 II. (£10).—KENNETH W. MILNES, Stanway Manor, Church Stretton, for *British Oyster* 28650, born March 10, 1911, bred by W. J. Vaughn, Drumleigh, Stoke Prior, Leominster: s. Pretty Laddie 27114, d. Pearl by Kimberley 21498; *Shamrock* (vol. 44, p. 636), born Sept. 1, 1906, bred by William Tudge, Summer Court, Kingston: s. Commandant 23940, d. Kathleen by King Arthur 17324; and heifer calf, born March 7, 1914.

1328 III. (£5).—SIR FREDERICK CAWLEY, BT., M.P., Berrington Hall, Leominster, for *Berrington Ringer* 28692, born Jan. 20, 1911: s. Albatross 19193, d. Happy Ringer by Happy Hampton 18697; *Ivy Plant* 4th (vol. 44, p. 306), born Jan. 28, 1907, bred by W. T. Barneby, Sulkmar-ke Castle, Bromyard: s. Rougemont 20206, d. Ivylen by Happy Hampton 19697; and bull calf, born April 25, 1914.

1333 E. N. & H. C.—J. F. RICKETTS, Trebarrell, Talgarth, Breconshire, for *Candlemas*, *Daisy*, and bull calf, H. C.—1330.

Class 139.—Hereford Cows (in-milk), calved in or before 1910. [9 entries.]

1336 I. (£10).—J. G. COOKE-HILL, Shelsley Bank, Stanford Bridge, Worcester, for *Shelsley Florence* (vol. 42, p. 369), born Jan. 11, 1910, calved Jan. 16, 1914: s. Eaton Sovereign 26832, d. Florence by Gambler 26639.

Award of Live Stock Prices at Shrewsbury, 1914. lxxxi

(Unless otherwise stated each prize animal named below was "bred by exhibitor")

- 1345 II. (26).—W. B. TUDGE, Stepside, Onibury, Salop, for *Ffrwdgrech Arabis*, born Jan. 22, 1910, calved Feb. 9, 1914, bred by J. D. D. Evans, Ffrwdgrech, Brecon; s. *Imaire* 26257, d. *Arabella* by Sulla 25806.
 1346 III. (24).—W. H. DEPPER, Dean Park, Tenbury, for *Lady Weston* (vol. 44, p. 689), born Jan. 7, 1907, calved May 20, 1914, bred by Thomas Morris, Weston, Penbridge; s. *Pauntun Tumbler* 24946, d. *Lady Grey* by Gift 17806.
 1347 R. N. & H. C.—A. J. SMALL, The Cinders, Tenbury, for *Carnation*.
 H. C.—1352.

Class 140.—Hereford Cows or Heifers (in milk, calved in or before 1911, showing the best milking qualities. [4 entries.]

- 1347 I. (210).—W. J. S. WHITE, Zeals, Wiltshire, for *Obdurate* (vol. 44, p. 924), born Feb. 24, 1908, calved May 21, 1914; s. *Prince Charles* 25831, d. *Delight* by *Belour* 18041.
 1348 II. (26).—SIR J. R. G. CORTISSELL, RT., Garmons, Hereford, for *Diadem* (vol. 44, p. 341), born Jan. 19, 1905, calved June 4, 1914; s. *Marcellus* 22553, d. *Hush* by *Reverio* 26657.
 1349 III. (24).—W. B. TUDGE, Stepside, Onibury, Salop, for *Golden Sunshine* (vol. 44, p. 886), born April 19, 1905, calved March 8, 1914; s. *Sibson* 25700, d. *Polly Morris* 2nd by *Aidon* 18925.

Class 141.—Hereford Heifers (in milk, calved in 1911. [3 entries.]

- 1348 I. (210).—ALLEN E. HUGHES, Wintercott, Leominster, for *Misty* (vol. 43, p. 361), born Jan. 22, calved April 25, 1914; s. *Ronald* 26450, d. *Marjory* by *Peck*, King 24192.
 1349 II. (26).—KENNETH W. MILNES, Stanway Manor, Church Stretton, for *Gem's Ruby* (vol. 43, p. 518), born Jan. 4, calved Nov. 17, 1913; s. *Blood-Tar* 25581, d. *Gemma* by *Goschen* 17284.
 1350 III. (24).—D. A. THOMAS, Llanwern Park, Newport, Mon., for *Pansy 18th* (vol. 43, p. 212), born Jan. 1, calved Feb. 22, 1914, bred by J. Bounds, Lowe, Penbridge; s. *Lancer* 26245, d. *Pansy 8th* by *Lucifer* 20771.

Class 142.—Hereford Heifers, calved in 1912. [11 entries.]

- 1351 I. (210, & Champion).—J. G. COCKERHILL, Shelsley Bank, Stamford Bridge, Worcester, for *Miss Vera* (vol. 44, p. 361), born March 29, bred by W. H. Davies, Clifton, Dornington, Hereford; s. *Nabob* 76324, d. *Fairtrade* by *Obelisk* 25957.
 1352 II. (26).—KENNETH W. MILNES, Stanway Manor, Church Stretton, for *Stanway Belle* (vol. 44, p. 892), born Jan. 24, bred by D. A. Thomas, Llanwern Park, Newport, Mon.; s. *North Star* 27725, d. *Best Love* by *Best Man* 23605.
 1353 III. (24).—D. A. THOMAS, Llanwern Park, Newport, Mon., for *Plume* (vol. 44, p. 867), born Jan. 5; s. *Onsland* 27741, d. *Plumstone* by *Whitern Mark-man* 23608.
 1354 R. N. & H. C.—KENNETH W. MILNES, for *Gem's Radiance*.
 H. C.—1352, 1359. C.—1353, 1354, 1355.

Class 143.—Hereford Heifers (Noticed, calved in 1912. [6 entries.]

- 1355 I. (210).—W. H. DEPPER, Dean Park, Tenbury, for *Lady John 8th* (vol. 44, p. 849), born Jan. 18, bred by Alfred Tanner, Shrawardine, Shrewsbury; s. *Shaden Wizard* 28718, d. *Lady John 7th* by *Major Domo* 26179.
 1356 II. (26).—THE EXORS. OF J. L. HALL, Lulham, Madley, Hereford, for *Giance* (vol. 44, p. 461), born May 1, bred by J. L. Hall; s. *Gentleman* 29119, d. *Gip* by *Kingsland Boy* 26242.
 1357 III. (24).—THE EXORS. OF J. L. HALL, for *Tiara* (vol. 44, p. 469), born Jan. 26, bred by J. L. Hall; s. *Kingsland Boy* 26242, d. *Target* by *Cressus* 19065.
 1358 R. N. & H. C.—W. OAKLEY, Lea Hall, Harmer Hill, Shrewsbury, for *Margie*.

Class 144.—Hereford Heifers, calved in 1913. [12 entries.]

- 1359 I. (210, & R. N. for Champion).—FRANK BIBBY, Hardwicke Grange, Shrewsbury, for *Chive Iris 3rd*, born Jan. 1; s. *Coup d'Ore* 29018, d. *Chive Iris 2nd* (vol. 42, p. 276) by *Weston Star* 25803.
 1360 II. (26).—KENNETH W. MILNES, Stanway Manor, Church Stretton, for *Stanway Gem*, born Jan. 11; s. *Sir James* 26489, d. *Gemma II* (vol. 44, p. 634) by *Merriman* 24158.
 1361 III. (24).—KENNETH W. MILNES, for *Silver Spangle*, born Jan. 1; s. *Coup d'Ore* 29016, d. *Coquette* (vol. 44, p. 633) by *Primate* 23968.
 1362 R. N. & H. C.—GERARD DENNY, Byford Court, Hereford, for *Juliet*.
 H. C.—1370. C.—1369, 1371, 1374.

Class 145.—Hereford Heifers (Noticed, calved in 1913. [11 entries.]

- 1363 I. (210).—JOSEPH ROWLANDS, Eyesbatch Court, Bishop's Frome, for *Lava*, born Jan. 19; s. *Carbone* 24132, d. *Lavinia* (vol. 44, p. 806) by *Tumbler* 17366.
 1364 II. (26).—JAMES MOSS, Eaton Hall, Leominster, for *Curly 59th*, born Jan. 29; s. *Vern Lucifer* 28802, d. *Curly 57th* (vol. 44, p. 675) by *Newton Tumbler* 24153.

* Champion Prize of £10 10s. given by the Hereford Herd Book Society for the best Cow or Heifer in Classes 139-145.

lxxxii Award of Live Stock Prizes at Shrewsbury, 1911.

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."
 1387 III. (£4.)—FRED FITCH MASON, The Paragon, Killay, Glam., for *Paragon*, born Feb. 11; s. Marco 28464, d. Ronden Lily 16th (vol. 43, p. 285) by Muskett 1911.
 1388 E. N. & H. C.—FRANK D. BACH, Oubury, Craven Arms, for *Miss Strawberry*, H. C.—1389. C.—1382, 1385, 1386.

Class 146.—Group Class, consisting of three Hereford Heifers, bred by Exhibitor. [3 entries.]

1356, 1374, 1376 I. (£10.)—KENNETH W. MILNES, for *Gem's Radiance*, Governor, Stanway Gem.
 1352, 1354, 1355 II. (£6.)—C. VENABLES LLEWELYN, Lysidann, Newbridge-on-Wye, Alberta, Bee, and Rowena.
 1360, 1378, 1379 III. (£4.)—D. A. THOMAS, for *Plums*, *Honeysuckle*, and *Sukey*.

Devons.¹

Class 147.—*Decon Bulls, calved in 1909, 1910, or 1911.* [4 entries.]

1391 I. (£10, & E. N. for Champion,*)—HIS MAJESTY THE KING, Royal Farms, Windsor, for *Star of Windsor* 5539, born April 12, 1911; s. Pound Monk 6306, d. Capton's 21, 21149 by Capton Bellinger 4911.
 1392 II. (£6.)—SAMUEL KIDNER, Bickley, Milverton, Somerset, for *Stockleigh Goldfisher* 7288, born May 28, 1909; s. Cronje 5470, d. Daisy 25147 by Capton Harold 4728.
 1393 III. (£4.)—VISCOUNT PORTMAN, Bryanston, Blandford, for *Bryanston Guardian* 6998, born Jan. 21, 1910; s. Bryanston Golden Rod 5977, d. Gladys by Eureka 4150.
 1394 R. N. & H. C.—VISCOUNT PORTMAN, for *Marmion*.

Class 148.—*Decon Bulls, calved in 1912.* [4 entries.]

1398 J. (£10.)—SIR G. A. H. WILLS, BT., M.P., Northmoor, Dulverton, for *Northmoor Vanguard* 7810, born Feb. 13; s. War Cry 6940, d. Cothelstone Proof 23511 by Ruff 5570.
 1395 II. (£6.)—W. E. MALLITT, Rainbow Wood, Bath, for *Pound Cowboy* 7827, born Jan. 11, bred by Mrs. A. C. Skinner & Son, Pound, Bishops Lydeard; s. Lord Bob 7122, d. Pound Cowship 6th 23863 by Pound Gladiator 6169.
 1397 III. (£4.)—VISCOUNT PORTMAN, Bryanston, Blandford, for *Bryanston Toby* 7607, born March 25; s. Bryanston Pitcher 5990, d. Compton Goodluck 2nd 22314 by Overton Eclipse 5978.
 1396 R. N. & H. C.—VISCOUNT PORTMAN, for *Bryanston Boxer*.

Class 149.—*Decon Bulls, calved in 1913.* [12 entries.]

1407 I. (£10, & Champion,*)—LORD POLTIMORE, Court Hall, North Molton, Devon, for *Gotton Prince* 2nd, born Jan. 23, bred by John Thorne, Gotton, West Monkton, Taunton; s. Blackguard 6622, d. Princess 1st by Pound Lord Brassy 2nd 4651.
 1404 II. (£6.)—CHARLES MORRIS, Highfield Hall, St. Albans, for *Highfield Conqueror*, born Jan. 23; s. Madrid Conqueror 7470, d. Highfield Favourite 24383 by Pound Lord Brassy 5th 5622.
 1408 III. (£4.)—LORD POLTIMORE, for *Stockleigh Nominator*, born Feb. 24, bred by William Tuckett, Stockleigh, Pomeroy, Crediton; s. General Buller 4592, d. Milkmaid 23150 by Capton Harold 4728.
 1406 R. N. & H. C.—ROBERT BRUFORD, Nerrols, Taunton, for *Lord Primrose*, H. C.—1405, 1410. C.—1401, 1402, 1403, 1406, 1409.

Class 150.—*Decon Cows or Heifers (in-milk), calved in or before 1911.*

[6 entries.]

1411 I. (£10.)—HIS MAJESTY THE KING, Royal Farms, Windsor, for *Beauty* 2nd 2183, born Jan. 4, 1909, calved March 18, 1914, bred by W. Bowden, Ker-cott, Barn-tople, s. Bickley Tutor 5361, d. Beauty, by Buller 4722.
 1412 II. (£6.)—HIS MAJESTY THE KING, for *Fancy* 24925, born Feb. 10, 1911, calved March 16, 1914; s. Capton Ploughboy 4923, d. Fairy 17538 by Councillor 3467.
 1416 III. (£4.)—MRS. A. C. SKINNER & SON, Pound, Bishops Lydeard, for *Ruby* 23rd 23628, born Sept. 8, 1907, calved April 28, 1914, bred by H. W. Corner, Inglescombe, Bath; s. Noble Boy 4832, d. Ruby 21st 18767 by Lord Breach 3467.
 1414 R. N. & H. C.—CHARLES MORRIS, Highfield Hall, St. Albans, for *May Blossom* 6th, H. C.—1415.

Class 151.—*Devon Dairy Cows or Heifers (in-milk) calved in or before 1911.*

[10 entries.]

1418 I. (£10.)—VISCOUNT CHERWYND, Wyndthorpe, Downaster, for *Handsome No. A* 2nd Sup., born June 11, 1899, calved April 30, 1914, bred by Edward Badcock, Washford, Taunton; s. Nobleman, d. Holly by Rent Day 3649.

* £50 towards these Prizes were given by the Devon Cattle Breeders' Society.

* Champion Prize of £10 10s. given by the Devon Cattle Breeders' Society for the best Bull in Classes 147-149.

Award of Live Stock Prizes at Shrewsbury, 1914. LXXIII

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."]

- 1420 II. (£6.)—JOHN H. CHICK, Wynford Eagle, Dorchester, for Wynford Toby A 1108 3/4, born in 1906, calved May 15, 1914.
1421 III. (£4.)—LORAM BROTHERS, Rosamondford, Aylesbeare, Exeter, for Debit B 267 Sup., born May 14, 1910, calved May 28, 1914; s. Ringleader 613, d. Deborah A 6.
1422 R. N. & H. C.—LORAM BROTHERS, for Calpurnia.
H. C.—1426.

Class 152.—Devon Heifers, calved in 1912. [5 entries.]

- 1427 I. (£10 & Champion.)—LEWIS H. ALFORD, Horridge, Ashford, Barnstable, for Horridge Belle 25520, born Feb. 25; s. Hall Curly Bay 6722, d. Sadie-gotte 22480 by Capton Sunny Jim 5162.
1428 II. (£6, & R. N. for Champion.)—CHARLES MORRIS, Highfield Hall, St. Albans, for Highfield Charm 29355, born April 1st; s. Holsombe Rufus 7442, d. Whimpe Beauty 3rd 19570 by Hestercombe Redlight 4117.
1429 III. (£4.)—VISCOUNT PORTMAN, Bryanston, Blandford, for Bryanston Gold 29165, born July 7; s. Hestercombe Dasher 7113, d. Bryanston Gabe 28815; Bryanston Pitcher 5980.
1428 R. N. & H. C.—MARCUS J. KIDNER, Fennington, Kingston, Eton, for Fennington Magic.

Class 153.—Devon Heifers, calved in 1913. [7 entries.]

- 1424 I. (£10.)—CHARLES MORRIS, Highfield Hall, St. Albans, for Highfield Countess 4th, born Jan. 4; s. Capton Bellringer 4911, d. Highfield Countess 2nd 25319 by Pound Bellringer 5617.
1428 II. (£6.)—SIR G. A. H. WILLS, BT, M.P., Northmoor, Dorchester, for Northmoor Prudence, born March 10; s. Northmoor Royal Mail 7210, d. Cattlestone Dora 1:341 by Rufus 5330.
1429 III. (£4.)—ROBERT BRUFORD, Nerrols, Taunton, for Nerrols Crocus, born March 20; s. War Cry 6910, d. Duchess C. 36 by Duke of Wellington 4184.
1428 R. N. & H. C.—VISCOUNT PORTMAN, for Bryanston Gold Dust.
H. C.—1426.

Class 154.—Milk-gield Prizes, open to Devon Cows and Heifers entered in Classes 150 and 151 only. [9 entries.]

- 1426 I. (£10.)—LORAM BROTHERS, Rosamondford, Aylesbeare, Exeter, for Orange A 319 Sup., born in 1907, calved April 25, 1914, breeder unknown.
1420 II. (£6.)—JOHN H. CHICK, for Wynford Toby. (See Class 151.)
1423 III. (£4.)—LORAM BROTHERS, for Calpurnia A 59 Sup., born in 1906, calved May 3, 1914, breeder unknown.
H. C.—1424.

South Devons.*

Class 155.—South Devon Bulls, calved in or before 1912. [3 entries.]

- 1441 I. (£10, & R. N. for Champion.)—J. SPARROW WROTH & SONS, Coombe, Axeton Gifford, South Devon, for Silver Royal 271, born Oct. 17, 1906, bred by John Luscombe, Wonwell, Kingston, Kingsbridge; s. Silver King 1251, d. Vanity 5th 113 by King Arthur 857.
1440 II. (£6.)—BEN LUSCOMBE, Bowden, Yeahampton, for Langston King 434, born April 5, 1912; s. Leigham Sort 3199, d. Wonwell Cherry 4th 5840 by Marquis 2175.

Class 156.—South Devon Bulls, calved in 1913. [8 entries.]

- 1444 I. (£10 & Champion.)—ANDREW ROGERS, Brownstone, Yeahampton, for Brownstone Liddle, born Jan. 4; s. Pastime 3837, d. Imperial 6361 by Marmaduke 1188.
1445 II. (£6.)—ANDREW ROGERS, for Wonwell Hero, born March 21, bred by John Luscombe, Wonwell, Kingston, Kingsbridge; s. Malston Hero 6th 3478, d. Pretty Maid 6930 by Duke of York 1439.
1440 III. (£4.)—J. SPARROW WROTH & SONS, Coombe, Axeton Gifford, South Devon, for Cadet, born April 13; s. Silver Royal 271, d. Cherry 215 by Dan Leno 2111.
1443 R. N. & H. C.—P. B. MILDMAY, M.P., Flete, Ivy-bridge, for Sexton Saltram.
H. C.—1446. C.—1447, 1448.

Class 157.—South Devon Cows or Heifers (in-milk), calved in or before 1911. [11 entries.]

- 1451 I. (£10.)—DAVID CAMP & SONS, Willand, Mothbury, South Devon, for Orange Girl 9775, born March 1, 1910, calved Jan. 5, 1914; s. Henry 8th 3128, d. Willand Sunbeam 3rd 7906 by Happy Harry 2632.

* Champion Prize of £10 10s. given by the Devon Cattle Breeders' Society for the best Cow or Heifer in Classes 150, 152 and 153.
* £20 towards these Prizes were given by the South Devon Herd Book Society.
* Challenge Cup given by a Member of the R.A.S.E. interested in the breeding of South Devons, for the best Animal in Classes 153-155.

lxxxiv Award of Live Stock Prizes at Shrewsbury, 1911.

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."]—

- 1450 II. (£8.)—B. BUTLAND, Leigham, Plympton, Devon, for Handsome 10th 1037, born May 12, 1911, calved Jan. 4, 1914; s. Henry 7th 3178, d. Handsome 6th 8301 by 1. 2167.
1457 III. (£4.)—W. & H. WHITLEY, Primley Farm, Paignton, for Princess 3rd 672, born Nov. 25, 1905, calved May 16, 1914, bred by J. Shinner, Tidwell, Staverton; s. B. 1633, d. Princess 3891 by Masher 769.
1458 E. N. & H. C.—J. SPARROW WROTH & SONS, for Best Woman 5th.
H. C.—1462, 1480. C.—1458.

Class 158.—*South Devon Heifers, calved in 1912.* [3 entries.]

- 1461 I. (£10.)—B. BUTLAND, Leigham, Plympton, Devon, for Handsome 12th 11391, born Jan. 4; s. Henry 7th 3178, d. Handsome 3rd 8332 by Leigham Champion 1907.
1463 II. (£8.)—BEN LUSCOMBE, Bowden, Yealmpton, Devon, for Countess Girl 1135, born March 31; s. Leigham Sort 3199, d. Countess 6010 by Masher 769.

Class 159.—*South Devon Heifers, calved in 1913.* [6 entries.]

- 1468 I. (£10.)—W. & H. WHITLEY, Primley Farm, Paignton, for Primley Gladys, born Jan. 6; s. Manager 2173, d. Primley Dairymaid 10469 by Reindeer 2213.
1467 II. (£8.)—DAVID CAMP & SONS, Widdland, Modbury, South Devon, for Orange Girl 2nd, born Jan. 19; s. Ley Marquis 2941, d. Orange Girl 9175 by Henry 8th 3173.
1466 E. N. & H. C.—B. BUTLAND, Leigham, Plympton, Devon, for Snowdrop 8th.
H. C.—1465. C.—1464.

Class 160.—*Milk Yield Prizes, open to South Devon Cows or Heifers entered in Class 157 only.* [8 entries.]

- 1459 I. (£10.)—J. SPARROW WROTH & SONS, Coombe, Aveton Gifford, South Devon, for Best Women 5th, 8061, born Sept. 29, 1907, calved May 20, 1914, bred by A. E. Stidston, Court Barton, Thurleston; s. Wonwell 2368, d. Best Women 2nd 5616 by Apollo 1248.
1454 II. (£8.)—PAGE & WHITLEY, Warren Hall Farm, Broughton, near Chester, for Milkmaid, 6543, born July 10, 1905, calved March 16, 1914, bred by W. S. Harris, Well Farm, Stoke Gabriel, South Devon; s. Hero 2nd 1660, d. Pretty 2nd 4127 by Widdland Revelstoke 845.
1455 III. (£4.)—R. B. MEATHRELL, Coulston, Revelstoke, Plymouth, for Cherry 550, born Dec. 10, 1907, calved April 21, 1914; s. Bridegroom 2089, d. Pride 5003 by Marquis 1018.
H. C.—1466, 1458.

Longhorns.¹

Class 161.—*Longhorn Bulls, calved in 1909, 1910, 1911 or 1912.*

[8 entries.]

- 1472 I. (£10 & Champion.)—LORD GERARD, Eastwell Park, Ashford, Kent, for Eastwell Empire 592, plum brindle and white, born July 4, 1911; s. Eastwell Emperor 502, d. Bentley Dido by Bentley Wonder 373.
1474 II. (£8, & R.N. for Champion.)—F. A. N. NEWDEGATE M.P., Arbury Hall, Nuneaton, for Arbury King 568, brindle and white, born Nov. 8, 1911; s. Dersingham Prince 528, d. Arden Fairy Queen by Prodigal 510.
1476 III. (£4.)—W. HANSON SALE, Arden Hill, Atherstone, for Witherley Captain 539, brindle and white, born May 22, 1911, bred by C. H. B. Chamberlayne, Witherley Hall, Atherstone; s. Putley Playmate 547, d. Susan by Guy Pawkes 415.
1475 R. N. & H. C.—J. L. & A. RILEY, The Twerne, Putley, Ledbury, for Poles Caesar.

Class 162.—*Longhorn Bulls, calved in 1913.* [9 entries.]

- 1482 I. (£10 & Champion.)—W. HANSON SALE, Arden Hill, Atherstone, for Arden Heir, brindle and white, born Jan. 7; s. Arden Rover 574, d. Arden Heiress (vol. 8, p. 43) by Prodigal 510.
1484 II. (£8.)—LORD SOUTHAMPTON, Idlicote, Shipeton-on-Stour, for Bolingbroke, brindle and white, born Jan. 29; s. Quercus, d. Pride 2nd (vol. 5, p. 29) by President.
1486 III. (£4.)—J. W. SWINNERTON-WESTON, Over Whitacre House, near Birmingham, for Whitacre Perfection, brindle and white, born Feb. 1, bred by W. F. Swinnerton, Over Whitacre; s. Eastwell Exact, d. Strivichall Rose (vol. 8, p. 51) by Arden Model.
1480 E. N. & H. C.—F. A. N. NEWDEGATE M.P., for Arbury Emperor.

Class 163.—*Longhorn Cows or Heifers (in-milk), calved in or before 1911.* [8 entries.]

- 1480 I. (£10.)—LORD GERARD, Eastwell Park, Ashford, Kent, for Easter of Eastwell (vol. 7, p. 15), brindle and white, born April 4, 1909, calved March 5, 1914; s. Melcombe Emperor 416, d. Bentley Dido by Bentley Wonder 373.

¹ £20 towards these Prizes were given by the Longhorn Cattle Society.

² Perpetual Challenge Cup given by the Longhorn Cattle Society for the best Bull or Cow in Classes 161 and 163.

³ Silver Challenge Cup given through the Longhorn Cattle Society for the best Bull or Heifer in Classes 162 and 164.

Award of Live Stock Prizes at Shrewsbury, 1914. XXXV

[Unless otherwise stated, each prize animal named below was offered by exhibitor.]

1489 II. (46.)—**LORD GERARD**, for *Bentley Dido* (vol. 5, p. 166), brindle and white, born Jan. 11, 1904, calved March 15, 1911, bred by Mrs. M. M. Chappell, Bentley Manor, Redditch; s. *Bentley Wonder* 373, d. *Dido* by Earl of Upton (2d 385).

1494 III. (44.)—**W. HANSON SALK**, Arden Hall, Atherstone, for *Bilstone Sunlight* (vol. 5, p. 181), brindle and white, born May 20, 1904, calved May 21, 1914, bred by G. H. Tanser, Bilstone, Atherstone; s. *Bilstone Monarch* 374, d. *Bilstone Moonshine* by Wineome Lad 391.

1495 **R. N. & H. C.—J. L. & A. RILEY**, The Twerne, Putley, Lechlery, for *Putley Jewel*
Class 164.—*Longhorn Heifers, calved in 1912 or 1913.* [10 entries.]

1499 I. (£10, & R. N. for Champion.)—**F. A. N. NEWDEGATE**, M.P., Astbury Hall, Nant-eaton, for *Arbury Elise*, red and white, born March 11, 1912, s. *Putley Count* 543, d. *Bridesmaid of Kent* (vol. 8, p. 14) by *Narley's Pretender* 120.

1501 II. (28.)—**HENRY B. PARSONS**, Estate Office, Eastwell Park, Ashford, Kent, for *Tulip*, red brindle and white, born Jan. 18, 1912, bred by F. J. Mayo, Friar Waddon, Dorchester; s. *Waddon Nora* 350, d. *Tess* (vol. 7, p. 48) by *Narley's Champion* 146.

1498 III. (24.)—**F. A. N. NEWDEGATE**, M.P., for *Arbury Belle*, brindle and white, born July 8, 1912, s. *Lord Friar* 594, d. *Ardlen Sweetheart* (vol. 6, p. 397), *Putley Gray* Lad.

1504 **R. N. & H. C.—EDWARD TINGEY**, Dersingham, King's Lynn, for *Jane Bates*.

Class 165.—*Milk Yield Prizes, open to Longhorn Cows and Heifers entered in Class 163 only.* [6 entries.]

1491 I. (£10.)—**F. J. MAYO**, Friar Waddon, Dorchester, for *Christabel*, red and white, born Nov. 28, 1909, calved April 2, 1914, s. *Narley's Courier* 568, d. *Waddon Circum* (vol. 5, p. 81) by *Pretender* 3rd 391.

1498 II. (26.)—**CAPT. C. W. COTTEKILL-DORMER**, Rousham, Seapole, Aston, Oxon, for *Lorna*, (vol. 8, p. 36), red and white, born Jan. 13, 1911, calved March 15, 1914, bred by F. J. Mayo, Friar Waddon, Dorchester; s. *Narley's Courier* 568, d. *Waddon Lively* by *Pretender* 3rd 391.

Sussex.

Class 166.—*Sussex Bulls, calved in 1909, 1910, or 1911.* [3 entries.]

1507 I. (£10, & R. N. for Champion.)—**JAMES GROVES**, Brownings Manor, Blackboys, Sussex, for *Apsley Albert* 2nd 2706, born June 21, 1910, bred by W. G. Ridgway, Apsley, Thakeham; s. *Albert* 2nd 2662, d. *Apsley Daisy* 9831 by *Hechester Twin* 1225.

1506 II. (26.)—**W. T. FREMLIN**, Milgate Park, Maidstone, for *Tutsham Nora* 2341, born Jan. 3, 1911, bred by Gerald Warde, Tutsham, West Farleigh, Maidstone; s. *Shobington Beech* 5th 2394, d. *Lady Nora* 5th 11862 by *Tutsham Torador* 296.

1505 III. (24.)—**J. RAYNER BETTS**, Greenhill, Otham, Maidstone, for *Oddfellow* 2654, born June 19, 1909, bred by A. J. Hickman, Egerton, Kent; s. *Exton Hector* 2363, d. *Bonfire* 26th 8483 by *Prince Napier* 2nd 1820.

Class 167.—*Sussex Bulls, calved in 1912.* [1 entry.]

1508 I. (£10, & Champion.)—**THE HON. R. P. NEVILL**, Birling Manor, West Malling, Kent, for *Birling Geoffrey* 3164, born Feb. 4, s. *Birling Obed* 2, 6th, d. *Marshallfield Florence* 2nd 10899 by *Buchan Alfred* 1915.

Class 168.—*Sussex Bulls, calved in 1913.* [7 entries.]

1515 I. (£10.)—**CAMPBELL NEWINGTON**, Oakover, Titchhurst, Sussex, for *Oakover Torador* 5th 3472, born Jan. 18, s. *Tutsham Torador* 296, d. *Royal Daisy* 5th 9998 by *Alfred* 1637.

1509 II. (26.)—**JOHN AUNGIER**, Lynwick, Rudgwick, for *Lynwick Judge* 3236, born March 17, s. *Drungewick K. C.* 3rd 2662, d. *Lynwick Rock Cherry* 12, 72 by *Lynwick Rendley* 2412.

1511 III. (24.)—**J. RAYNER BETTS**, Greenhill, Otham, Maidstone, for *Otham Oddfellow* 3rd, born March 6, s. *Oddfellow* 2654, d. *Pendople* 2331 by *Cressus* 1820.

1512 **R. N. & H. C.—WILLIAM FORD**, Singehurst, Titchhurst, for *Brownings King* 4th.

Class 169.—*Sussex Cows or Heifers (in-milk), calved in or before 1911.*
[4 entries.]

1519 I. (£10, & Champion.)—**W. A. THORNTON**, Lock, Hartbridge Green, Sussex, for *Lock Betsy* 13226, born Jan. 8, 1910, calved Feb. 6, 1914, s. *Tutsham Torador* 296, d. *Betsy* 4th of *Lock* 11562 by *Prince of Drungewick* 3rd 1810.

¹ Silver Challenge Cup given through the Longhorn Cattle Society for the best Bull or Heifer in Classes 162 and 164.

² £20 towards these Prizes were given by the Sussex Herd Book Society.

³ Champion Silver Medal given by the Sussex Herd Book Society for the best Bull in Classes 166-168.

⁴ Champion Silver Medal given by the Sussex Herd Book Society for the best Cow or Heifer in Classes 169-171.

lxxxvi *Award of Live Stock Prizes at Shrewsbury, 1914.*

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."

- 1516 II. (£6.)—**WILLIAM FORD**, Singehurst, Ticehurst, Sussex, for **Sheldwick** Drove 10567, born March 32, 1906, calved April 24, 1914, bred by H. Amos, Shefford, Faversham; s. **Prebble** Cadet 2nd 1935, d. **Ripton** Daisy 3rd 9132 by **Brave Boy** 1914.
 1518 III. (£4.)—**CAMPBELL**, NEWINGTON, Oakover, Ticehurst, Sussex, for **Orchard** mains **Charming** 12049, born Jan. 20, 1908, calved Jan. 2, 1914, bred by the late owner of Derby, Orchardmains, Tonbridge; s. **Dragoon** 1881, d. **Charming** 9180 by H. Amos 1747.

1517 **R. N. & H. C.**—**JAMES GROVES**, for **Rotherfield** Honora.

Class 170.—*Sussex Heifers, calved in 1912.* [2 entries.]

1520 I. (£10.) & **R. N. for Champion** (1)—**JOHN AUNGIER**, Lynwick, Rudgwick, for **Knelle** Flirt 4th 14023, born Jan. 1; s. **Lynwick** Gold 2635, d. **Knelle** Flirt 2nd 10610 by **Boxley** Prince 2027.

1521 II. (£6.)—**JAMES GROVES**, Brownings Manor, Blackboys, Sussex, for **Apsley** Nora 3rd 14303, born Jan. 20, bred by W. G. Fladgate, Apsley, Thakeham; s. **Shilling** Bawbush 6th 2409, d. **Theale** Nora 2208 by **Gladstone** Prince 3rd 1777.

Class 171.—*Sussex Heifers, calved in 1913.* [8 entries.]

1522 I. (£10.)—**JOHN AUNGIER**, Lynwick, Rudgwick, for **Lynwick** **Knelle** Flirt 3rd 14023, born Jan. 11; s. **Lynwick** **Prebble** 2637, d. **Knelle** Flirt 2nd 10610 by **Boxley** Prince.

1527 II. (£6.)—**THE HON. R. P. NEVILL**, Birling Manor, West Malling, Kent, for **Birling** **Beauty** 2nd 15137, born Jan. 22; s. **Birling** **Ralph** 2378, d. **Bonette's** **Beauty** 8894 by **Gladstone** Prince 2nd 1716.

1529 III. (£4.)—**W. A. THORNTON**, Lock, Partridge Green, for **Lock** **Darkey** 10th 1529, born Feb. 15, s. **Prince** of **Lock** 2nd 2499, d. **Darkey** A of **Lock** 11067 by **Prince** of **Drungewick** 3rd 1810.

1534 **R. N. & H. C.**—**WILLIAM FORD**, Singehurst, Ticehurst, for **Ticehurst** **Beechnut**.
H. C.—1525, 1528.

Welsh.

Class 172.—*Welsh Bulls, calved on or after December 1, 1908, and before December 1, 1911.* [4 entries.]

1538 I. (£10.)—**LORD SHEFFIELD**, Penrhos, Holyhead, for **Ap** **Caradog** 511, born in Nov., 1909; s. **Penymynydd** **Caradog** 573, d. **Eurgain** 1146 by **Ap** **Klondyke** 162.

1539 II. (£6.)—**R. M. GREAVES**, Wern, Portmadoc, for **Wern** **Inky** 538, born Mar. 29, 1908; s. **Duke** of **Wellington** 254, d. **Molton** 369 by **Mafeking** 460.

1542 III. (£4.)—**COLONEL HENRY PLATT**, C.B., Gorrindog, Llanfairfechan, for **Madryn** **Togo** 491, born Jan. 5, 1910, bred by O. Parry Jones, Plas Llechlyched, Bryngwran; s. **Plas** **Togo** 249, d. **Plas** **Nancy** 1322 by **Snowdon** **Bach** 413.

1551 **R. N. & H. C.**—**LORD HARLECH**, Glyn, Talsarnau, for **Glyn** **Inifedl**.

Class 173.—*Welsh Bulls, calved on or after December 1, 1911, and before December 1, 1912.* [6 entries.]

1535 I. (£10.)—**LORD HARLECH**, Glyn, Talsarnau, for **Glyn** **Bettws** 571, born Dec. 10, 1911, bred by Owen Williams, Pen-tunllyn, Criccieth; s. **Penllyn** **Caflow** 388, d. **Penllyn** **Glysg** 1465 by **Tip** **Top** 156.

1536 II. (£6.)—**J. W. HARRIES**, Pilrtho, Llanstephan Road, Carmarthen, for **Monwyson** 2nd of **Pilrtho** 568, born Dec. 29, 1911, bred by W. Thomas, Hirdrefaig, Llanzein; s. **Tango** 271, d. **Ruth** 11, 9 by **Padrig** 133.

1538 III. (£4.)—**C. H. LLOYD-EDWARDS**, Nanhoron, Pwllheli, for **Nanhoron** **President** 604, born Jan. 4, 1912; s. **Robin** **Ddu** 518, d. **Nanhoron** **Necklace** 1574 by **Nanhoron** **Nimble** 300.

1537 **R. N. & H. C.**—**DAVID JENKINS**, Cerrigtrannau, Talybont, for **Cadwallo**.

Class 174.—*Welsh Bulls, calved on or after December 1, 1912, and before December 1, 1913.* [6 entries.]

1543 I. (£10.)—**C. H. LLOYD-EDWARDS**, Nanhoron, Pwllheli, for **Nanhoron** **Baronet** 605, born Dec. 27, 1912; s. **Robin** **Ddu** 518, d. **Nanhoron** **Necklace** 1574 by **Nanhoron** **Nimble** 300.

1544 II. (£6.)—**ROBERT ROBERTS**, Rhydygarwedd, Towyn, Merioneth, for **Rhydygarwedd** **Emperor**, born Jan. 2, 1913, bred by Lord St. Davids, Lydstep Haven, Ponnally; s. **Lydstep** **Emperor** 516, d. **Lydstep** **Nora** 1487 by **Hendre** **Boy** 256.

1542 III. (£4.)—**O. PARRY JONES**, Plas Llechlyched, Bryngwran, Anglesey, for **Plas** **Hero** 2nd 606, born Jan. 8, 1913; s. **Plas** **Togo** 249, d. **Plas** **Nora** 1056 by **Plas** **Lad** 69.

1549 **R. N. & H. C.**—**R. M. GREAVES**, Wern, Portmadoc, for **Wern** **Mahomet**.

H. C.—1541. **C.**—1545.

¹ Champion Silver Medal given by the Sussex Herd Book Society for the best Cow or Heifer in Classes 169-171.

² £40 towards these Prizes were given by the Welsh Black Cattle Society.

Award of Live Stock Prizes at Shrewsbury, 1914. xxxvii

(Unless otherwise stated, each prize animal named below was exhibited by exhibitor.)

Class 175.—*Welsh Cows or Heifers (in-milk), calved before December 1, 1913.* [2 entries.]

- 1546 I. (216).—R. M. GREAVES, Wern, Portmadoc, for *Lydstep Sarah* 1487, born Jan. 2, 1910, calved Dec. 13, 1913, bred by Lord St. Davids, Llystip Haven, Pembrokeshire; s. Hendre Boy 256, d. Sarah 3th 207, by Garry Lad 95.
1547 II. (25).—THE HON. F. G. WYNN, Glynllynon Park, Carmarvon, for *Lady Newydd* 3rd 1217, born Dec. 7, 1905, calved April 23, 1914; s. The Shah 201, d. Lady Newydd 664 by Rhaiadr Du 3rd 455.

Class 176.—*Welsh Heifers (in-milk), calved on or after December 1, 1910, and before December 1, 1911.* [2 entries.]

- 1548 I. (216).—LORD HARLECH, Glyn Tal-y-arian, for *Glyn Cynll 2nd* 1319, born Dec. 21, 1910, calved Dec. 5, 1911; s. Meirion 286, d. Glyn Cynll 1045 by Pen-ty, Ffyn-fyf 167.
1549 II. (25).—O. PARRY JONES, Plas Llechydol, Bryngwyn, Anglesey, for *Plas Eluned* 1752, born May 7, 1911, calved Feb. 10, 1914; s. Plas Togo 291, d. Sion 1374 by Sion-wion Bach 413.
1549 III. (24).—LORD HARLECH, for *Glyn Myra 2nd*, born Jan. 3, 1911, calved Jan. 28, 1914; s. Meirion 286, d. Glyn Myra 1311 by Glyn Alphonso 347.

Class 177.—*Welsh Heifers, calved on or after December 1, 1911, and before December 1, 1912.* [5 entries.]

- 1550 I. (210).—DAVID JENKINS, Cerrigtrannu, Talybont, for *Betay*, born Dec. 24, 1911; s. Billy Bach 2nd 368, d. Jim Jones 2nd 1512 by Billy Bach 246.
1551 II. (26).—LORD PENRHYN, Penryhn Castle, Bangor, for *Cwylan Nancy* 2nd 1719, born Jan. 10, 1912, bred by John Jones, Brynau Fawr, Ty Cross; s. Hys Iago 249, d. Cwylan Linda 302 by G. M. No. 5 405.
1551 III. (24).—R. M. GREAVES, Wern, Portmadoc, for *Wern Locket* 1651, born Feb. 25, 1912; s. Wern Joker 444, d. Wern Gossip 296 by Wern Emperor 50.
1552 R. N. & H. C.—THE HON. F. G. WYNN, for *Glyn Queen* 5th.

Class 178.—*Welsh Heifers, calved on or after December 1, 1912, and before December 1, 1913.* [9 entries.]

- 1553 I. (210).—DAVID JENKINS, Cerrigtrannu, Talybont, for *Lilwen*, born Dec. 4, 1912; s. Marion Pacha, d. Jim Jones 2nd 1512 by Billy Bach 246.
1552 II. (25).—R. W. PRITCHARD, Coed Marion, Carmarvon, for *Marion Nelly* 5th, born May 28, 1913; s. Marion Champion, d. Marion Nelly 896 by Marion Pen 1, 2nd 134.
1552 III. (24).—R. M. GREAVES, Wern, Portmadoc, for *Wern Lady* 1656, born Dec. 13, 1912; s. Wern Iop 443, d. Wern Heather 1002 by Duke of Wellington 291.
1553 R. N. & H. C.—O. PARRY JONES, Plas Llechydol, Bryngwyn, for *Plas Siani*.
H. C.—1558. C.—1560.

Red Polls.¹

Class 179.—*Red Poll Bulls, calved in 1909, 1910 or 1911.* [3 entries.]

- 1561 I. (210, & R. N. for Champion).—THE RT. HON. SIR ALWYN E. FELLOWES, K.C.V.O., Honingham Hall, Norwich, for *Honingham Astrologie* 1093, born May 5, 1911; s. Honingham Alceator 1024, d. Gladia 1965 by Admiral Popoff 890.
1562 II. (25).—THOMAS BROWN & SON, Marham Hall, Norwich Market, for *Marham Alce* 1038, born Feb. 7, 1911; s. Patriot 869, d. Honingham Alce 1866 by Arthur 602.
1562 III. (24).—LORD CRANWORTH, Letton, Norfolk, for *Letton Vanity Dayson* 5th 1962, born April 16, 1909; s. Letton Vanity Dayson 2812, d. Onica 2nd 1867 by Marquis Blush 9128.

Class 180.—*Red Poll Bulls, calved in 1912.* [8 entries.]

- 1572 I. (210, & Champion).—LORD CRANWORTH, Letton, Norfolk, for *Letton Dayson* 17th 1932, born March 2; s. Letton Onica 2nd Dayson 1048, d. Davy 25th 1032 by Marfolini 260.
1573 II. (25).—THE RT. HON. SIR ALWYN E. FELLOWES, K.C.V.O., Honingham Hall, Norwich, for *Honingham Albara* 2nd 1028, born April 25; s. Honingham Alceator 1024, d. Haverland Hasty 1659 by Norma Cud 602.
1573 III. (24).—LORD CRANWORTH, for *Emperor* 1011, born March 11, bred by G. Holt Wilson, Redgrave, Diss; s. Action Saracen 983, d. Pretty Flower 5th 2179 by Starodon Emperor 936.
1580 R. N. & H. C.—THOMAS BROWN & SON, for *Marham Alloy*.
C.—1574.

¹ £30 towards these Prizes was given by the Red Poll Cattle Society.

² Champion Prize of £5 given by the Red Poll Cattle Society for the best Bull in Classes 179-181.

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[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

Class 181.—Red Poll Bulls, calved in 1913. [10 entries.]

- 1577 I. (£10).—THOMAS BROWN & SON, Marham Hall, Downham Market, for **Marham Filbert** 1909, born Jan. 8; s. Ashlyns Count 10123, d. Filter 22555 by Davyson 2400.
 1580 II. (£3).—THE MARCHIONESS OF GRAHAM, Easton Park, Wexham Market, for **War in the East** 1909, born Jan. 12; s. Warwick 9515, d. Defeat 21138 by Red Duke.
 1579 III. (£4).—THE MARCHIONESS OF GRAHAM, for **Warfare** 1908, born Jan. 12; s. Warwick 9515, d. Ella 19102 by Magician 5021.
 1582 R. N. & H. C.—G. D. SMITH, Strensham Court, Worcester, for **Strensham Corporal** C.—1583.

Class 182.—Red Poll Cows or Heifers (in-milk), calved in or before 1913. [18 entries.]

- 1595 I. (£10, & Champion).—THE MARCHIONESS OF GRAHAM, Easton Park, Wexham Market, for **Ashlyns Fawn** 21968, born May 15, 1909, calved Jan. 7, 1914, bred by the late Sir Richard Cooper, Bt., Ashlyns, Berkhamsted; s. Ashlyns May 912, d. Ashlyns Firt 19012 by Ashlyns Frinton 7894.
 1594 II. (£6).—LORD CRANWORTH, Letton, Norfolk, for **Meadow Ruby** 22689, born April 10, 1910, calved May 3, 1914, bred by C. F. Newton, Saham, Watton; s. Letton Davy Davyson 9812, d. Flaxmoor Ruby 19229 by Red Duke 8623.
 1591 III. (£4).—KENNETH M. CLARE, Sudbourne Hall, Orford, Suffolk, for **Sudbourne Molly** 3rd 21914, born Oct. 8, 1908, calved May 18, 1914; s. Sudbourne Spicy 9531, d. Molly 2nd 16223 by Boy Bull 4291.
 1588 IV. (£3).—THOMAS BROWN & SON, Marham Hall, Downham Market, for **Acton Waxwing** 22891, born April 21, 1911, calved Feb. 2, 1914, bred by the Trustees of Sir Walter Corbet, Bt., Acton Reynold, Shrewsbury; s. Acton Saracen 9883, d. Waxlight 2nd 18965 by Royal Standard 8707.
 1603 R. N. & H. C.—G. D. SMITH, Strensham Court, Worcester, for **Acton Poppyhead** H. C.—1589. C.—1602.

Class 183.—Red Poll Heifers, calved in 1912. [10 entries.]

- 1609 I. (£10, & R. N. for Champion).—LORD CRANWORTH, Letton, Norfolk, for **Letton Cherry** 23569, born Jan. 20; s. Letton Omega 2nd Davyson 10048, d. Davy 257th A 2102, by Davyson 265th 9230.
 1608 II. (£6).—KENNETH M. CLARE, Sudbourne Hall, Orford, Suffolk, for **Sudbourne Berry** 1st 27399, born Feb. 17; s. Acton Crowfoot 9987, d. Sudbourne Bertha 21431 by Rendlesham Lad 9229.
 1607 III. (£4).—KENNETH M. CLARE, for **Sudbourne Becky** 23788, born June 14; s. Acton Crowfoot 9987, d. Sudbourne Bess 21452 by Sudbourne Marquis 9649.
 1613 R. N. & H. C.—H. H. HOWARD-VYSE, Stoke Place, Slough, for **Stoke Christabel** C.—1604.

Class 184.—Red Poll Heifers, calved in 1913. [14 entries.]

- 1614 I. (£10).—CAPTAIN D. G. ASTLEY, Little Plumstead Hall, Norwich, for **Plumstead Peony** 24246, born Jan. 3; s. Battleaxe 10142, d. Buttercup 19637 by Albert 6705.
 1626 II. (£6).—A. CARLYLE SMITH, Sutton Hall, Woodbridge, for **Ashmoor Medlar** 23662, born Jan. 10; s. Dax 9567, d. Ashmoor May 22901 by Radiance 9721.
 1629 III. (£4).—LORD CRANWORTH, Letton, Norfolk, for **Letton Cowslip** 24093, born Feb. 23; s. Letton Omega 2nd Davyson 10048, d. Sudbourne Jersey 1st 20973 by Sudbourne Rowdy 9506.
 1617 IV. (£3).—THOMAS BROWN & SON, Marham Hall, Downham Market, for **Marham Pear** 21139, born Feb. 21; s. Ashlyns Count 10123, d. Perfume 22219 by Gilroy 9801.
 1616 R. N. & H. C.—THOMAS BROWN & SON, for **Marham Alma** H. C.—1625. C.—1619.

Class 185.—Milk Yield Prizes, open to Red Poll Cows and Heifers entered in Class 182 only. [10 entries.]

- 1591 I. (£10).—KENNETH M. CLARE, for **Sudbourne Molly** 3rd. (See Class 182).
 1589 II. (£6).—KENNETH M. CLARE, for **Sudbourne Beurre** 3rd 21903, born Jan. 9, 1908, calved May 17, 1914; s. Sudbourne Spicy 9531, d. Sudbourne Beurre 18533 by Sudbourne C. C. 6909.
 1598 III. (£4).—THE EARL OF LONSDALE, Barley Thorpe, Oakham, for **Filosella** 21649, born Jan. 24, 1908, calved April 13, 1914; s. Acton Garnet 9352, d. Floss 14949 by Day Star 3417.
 H. C.—1592.

¹ Champion Prize of £5 given by the Red Poll Cattle Society for the best Cow or Heifer in Classes 182-184.

Award of Live Stock Prizes at Shrewsbury, 1914. LXXXIX

(Unless otherwise stated, each prize animal named below was bred by exhibitor.)

Aberdeen Angus.

Class 186.—*Aberdeen Angus Bulls, calved on or after December 1, 1908, and before December 1, 1911.* [11 entries.]

1637 I. (£10, & Champion.)—CLEMENT STEPHENSON, Ballinacorney Farm, Long Benton, Newcastle-on-Tyne, for Prince of Jesters, 32404, born March 1, 1910, bred by James Hamilton, Stockfield Hall, Stockfield-on-Tyne; s. Donestad Jester 1826 d. First Sire of Craighead 3478 by Erica Prince L 1438.

1638 II. (£5.)—LORD PENRHYN, Wicken Park, Stony Stratford, for Prefect of Wicken 32340, born May 24, 1910; s. Baron Broadben 2771, d. January Prince 32509, Premier of Finlaurig 17658.

1639 III. (£4.)—GEORGE HOYLES, Skidby Manor, near Hull, for Proud Monarch 7th of Skidby 35142, born July 2, 1910; s. Royal Justice of Haynes 3rd 28, s. Royal Queen 2nd of Somersby 22725 by Flagstaff 7341.

1638 R. N. & H. C.—JOSEPH THORLEY, Wood Hall, Shenley, Herts., for Vale of Preston, C.—1630.

Class 187.—*Aberdeen Angus Bulls, calved on or after December 1, 1911, and before December 1, 1912.* [10 entries.]

1639 I. (£10.)—VISCOUNT ALLENDALE, Bywell Hall, Stockfield-on-Tyne, for Elmstead, born May 3, 1912; s. Elmshore 29122, d. Marquise of Birley 3442 by Prince of Gens of Birtley 22506.

1641 II. (£5.)—J. E. KERR, Harviestoun Castle, Dollar, for Barbarian of Blanton 32739, born Jan. 1, 1912, bred by J. McL. Marshall, Beaton, Blairgowrie; s. Eradicator 2685, d. Bavarian Maid 40748 by Prince of the Wassall 2734.

1645 III. (£4.)—LORD PENRHYN, Wicken Park, Stony Stratford, for Errant Knight of Wicken 33113, born Dec. 27, 1911; s. Elmston 29124, d. Erudition at Wicken 4382 by Veronese 26460.

1640 R. N. & H. C.—JOHN STEWART CLARK, Dunhas Castle, South Queensferry, for Expert 2nd of Dundas, H. C.—1642. C.—1641, 1646, 1647.

Class 188.—*Aberdeen Angus Bulls, calved on or after December 1, 1912, and before December 1, 1913.* [14 entries.]

1634 I. (£10.)—GEORGE DRUMMOND, Swaylands, Peshurst, Kent, for Earl of Swaylands 34259, born Jan. 7, 1913; s. Prior of Swaylands 32128, d. Eva of Hurley 3602 by Evolsurus 21908.

1661 II. (£5.)—LORD PENRHYN, Wicken Park, Stony Stratford, for Ensign of Wicken 34403, born Dec. 14, 1912; s. Elmston 29124, d. Vedovina 43265 by Elder Baron 35411.

1653 III. (£4.)—J. J. CRIDLAN, Malsmore Park, Gloucester, for Everblack of Malsmore 34505, born Jan. 31, 1913; s. Brave Briton of Malsmore 36218, d. Evergreen 4th 4663 by Wizard of Malsmore 21463.

1649 R. N. & H. C.—VISCOUNT ALLENDALE, for Mountain Jester, H. C.—1658. C.—1659.

Class 189.—*Aberdeen Angus Cows or Heifers (in-milk), calved before December 1, 1911.* [7 entries.]

1667 I. (£10, & R. N. for Champion, & Champion.)—J. E. KERR, Harviestoun Castle, Dollar, for Pride of Palermo 89178, born May 4, 1911, calved Jan. 28, 1914; s. Prince of the Wassall 2731, d. Bride of Parra 44939 by Elect of Ballinacorney 2554.

1668 II. (£5, & R. N. for Champion.)—VISCOUNT ALLENDALE, Bywell Hall, Stockfield-on-Tyne, for Elasma 48281, born Jan. 13, 1910, calved Feb. 3, 1914; s. Telemaire 22088, d. Elasticity of Greatham 8th 40006 by Darlington 17678.

1664 III. (£4.)—J. J. CRIDLAN, Malsmore Park, Gloucester, for Tulip of Standen 40022, born Feb. 23, 1909, calved Jan. 6, 1914, bred by Captain Cooks-on-Thine Shildon, Wiltshire; s. Elector of Benton 21814, d. Crocus of Standen 37084 by Elmston 2455.

1665 R. N. & H. C.—C. L. PRIOR, Dogmum Priory, Romford, for Fair Peggie.

Class 190.—*Aberdeen Angus Heifers, calved on or after December 1, 1911, and before December 1, 1912.* [5 entries.]

1673 I. (£10.)—JAMES KENNEDY, Doonholm, Ayr, for Papra 50661, born Dec. 31, 1911; s. Elsyra 23110, d. Pride of Darknoss 43139 by Duke of Darnness 2672.

1670 II. (£5.)—J. J. CRIDLAN, Malsmore Park, Gloucester, for Estelle of Malsmore 50414, born April 6, 1912; s. Everwise 21436, d. Estern of West Wycombe 4395 by Prince Foremost 23724.

* £20 towards these Prizes were given by the Aberdeen Angus Cattle Society.

* Gold Medal given by the Aberdeen Angus Cattle Society for the best Animal in Classes 186-191.

* Gold Medal given by the English Aberdeen Angus Cattle Association for the best animal of the opposite sex to that of the animal awarded the Gold Medal of the Aberdeen Angus Cattle Society in Classes 186-191.

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(Unless otherwise stated, each prize animal named below was "bred by exhibitor.")

1671 III. (24.)—GEORGE DRUMMOND, Swaylands, Penshurst, Kent, for *Effulgent 5th of Swaylands* 50476, born Dec. 13, 1911; s. *Wildgrave of Ballindalloch* 43599; Effulgent 5th of Swaylands 43599 by Erect of Addington Park 20475.

1672 E. N. & H. C.—JAMES KENNEDY, for *Bovine Maid*.

Class 191.—*Aberdeen Angus Heifers, calved on or after December 1, 1912, and before December 1, 1913.* [19 entries.]

1675 I. (210.)—VISCOUNT ALLENDALE, Bywell Hall, Stocksfield-on-Tyne, for *Plasma of Bywell* 2nd 51904, born Dec. 18, 1912; s. *Elmhore* 20122, d. *Plasma of Bywell* 4th 18949, Dunsfield Jester 18949.

1683 II. (26.)—GEORGE DRUMMOND, Swaylands, Penshurst, Kent, for *Bluebell 5th of Swaylands* 52234, born Dec. 21, 1912; s. *Bonnie of Swaylands* 30334, d. *Bluebell of Swaylands* 46924 by Gay Boy of Dunsfield 21867.

1682 III. (24.)—J. J. CUDLIAN, Maisemore Park, Gloucester, for *Princess of Coolmore* 53493, born April 19, 1913, bred by R. C. Williams, Macroom, Ireland; s. *Ridge 2nd*, d. *Jemima of Bunteck* 36975 by Viceroy of Killeen 18640.

1688 IV. (23.)—J. E. KERR, Harvie-toun Castle, Dollar, for *Juanetta Erica* 52706, born Feb. 10, 1913; s. *Elect of Ballindalloch* 25518, d. *Juanita Erica* 42362 by Prince of the Wassail 23751.

1686 E. N. & H. C.—JAMES KENNEDY, Doonholm, Ayr, for *Eunomia*.
H. C.—1685. C.—1676, 1678, 1679.

Galloways.¹

Class 192.—*Galloway Bulls, calved on or after December 1, 1908, and before December 1, 1912.* [4 entries.]

1694 I. (210.)—DAVID BROWN, Steyford, Holywood, Dumfries, for *Jovial of Blackcombe* 11716, born April 24, 1912, bred by Hugh Fraser, Arkland, Dalbeattie; s. *Optimist* 11033, d. *Lady Nancy 3rd* 17482 by Camp-follower of Steyford 7476.

1696 II. (26.)—ROBERT GRAHAM, Auchengassel, Tynholm, for *Barrar* 11514, born Feb. 21, 1909, bred by John Scott, Barrar, Newton Stewart; s. *Condy of Arran* 16139, d. *Stinchar Jewel 2nd* 22176 by Saxon Prince 1149.

Class 193.—*Galloway Bulls, calved on or after December 1, 1912, and before December 1, 1913.* [5 entries.]

1701 I. (210.)—THOMAS HOPE-BELL, Morington, Dumfries, for *Raleigh of Killearn* 11988, born Dec. 20, 1912, bred by W. B. Donaldson, Dunkyan, Killearn; s. *Cuthbert* 11450, d. *Favourite 2nd* of Lochokit 18902 by Othello of Killeunahmy 8469.

1698 II. (26.)—THOMAS BIGGAR & SONS, Chapeltown, Dalbeattie, for *Hero of Thorniehill* 12010, born Jan. 28, 1913, bred by the Messrs. Gilbert Thorniehill, Balmaclellan; s. *Kenneth of Kill-arn* 11370, d. *Cowslip of Thorniehill* 18825 by Ken of Threecrofts 8706.

1702 III. (24.)—JAMES WILSON, Tundergarth Mains, Lockerbie, for *Hirundo of the Green* 13058, born March 2, 1913, bred by the late J. J. Henderson, The Green, Penton; s. *Glenclova* 11231, d. *Lizzie 18th of the Green* 18268 by Sir Duncan of Tundergarth Mains 8337.

1700 E. N. & H. C.—ROBERT GRAHAM, Auchengassel, for *Packet of Auchengassel*.

Class 194.—*Galloway Cows or Heifers (in-milk), calved before December 1, 1911.* [4 entries.]

1703 I. (210, & Champion.)²—SIR ROBERT W. BUCHANAN-JARDINE, BT., Castlehill, Lockerbie, for *Alexa of Castlemilk* 18452, born March 12, 1907, calved June 30, 1914; s. *Camp-follower of Glenhar* 8887, d. *Alice 2nd of Castlemilk* 16332 by The Pathfinder 3rd 5901.

1704 II. (26.)—SIR ROBERT W. BUCHANAN-JARDINE, BT., for *Alice 6th of Castlemilk* 19451, born Feb. 8, 1907, calved Feb. 6, 1914; s. *Nugget of Castlemilk* 7681, d. *Alice of Castlemilk* 14282 by Lowlander 2nd of Tarbreoch 5992.

1706 III. (24.)—A. H. FOX-BROCKBANK, The Croft, Kirkcubinton, Sicerot, Cumberland, for *Jessu 2nd* 21456, born Jan. 22, 1909, calved May 23, 1914, bred by J. Wilson, Tundergarth Mains, Lockerbie; s. *Royalty 8722*, d. *Jessie* 19137 by Cairnhouse 8764.

1705 E. N. & H. C.—A. H. FOX-BROCKBANK, for *Clara 11th*.

Class 195.—*Galloway Heifers, calved on or after December 1, 1911, and before December 1, 1912.* [5 entries.]

1707 I. (210, & E. N. for Champion.)³—THOMAS BIGGAR & SONS, Chapeltown, Dalbeattie, for *Lizzie 7th of Chapeltown* 27782, born March 18, 1912; s. *Sweepstakes* 10501, d. *Lizzie 2nd of Chapeltown* 19464 by Lord William 7108.

¹ £20 towards these Prizes were given by the Galloway Cattle Society of Great Britain and Ireland.

² Champion Prize of £5 given by the Galloway Cattle Society of Great Britain and Ireland for the best animal in Classes 192 to 196.

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(Unless otherwise stated, each prize animal named below was bred by exhibitor.)

- 1206 II. (26.)—A. H. FOX-BROCKBANK, The Croft, Kirkcanton, Selkirk, Cumberland, for Clara of Blackcombe 22893, born Dec. 31, 1911; s. Masborough 364; d. Arkland 872; s. Clara 11th 1914 by Woodland Prince 872.
- 1207 III. (24.)—THOMAS BIGGAR & SONS, for Lizzie 8th of Chapleton 22881, born Feb. 7, 1912; s. Sweepstakes 10001; d. Lizzie of Chapleton 1416; s. Professor of Garbrooch 7097.
- 1208 E. N. & H. C.—W. B. DONALDSON, Dunkyan, Killearn, N.B., for Jessica of Killearn, Class 196.—*Galloway Heifers, calving on or after December 1, 1912, and before December 1, 1913.* [8 entries.]
- 1213 I. (210.)—A. H. FOX-BROCKBANK, The Croft, Kirkcanton, Selkirk, Cumberland, for Clara 8th of Blackcombe 23333, born Feb. 4, 1913; s. Crown Jewel 15; d. Shepherd 3657; d. Clara of Blackcombe 21417 by Galliard 2nd of Castlebrook 814.
- 1212 II. (26.)—W. B. DONALDSON, Dunkyan, Killearn, Strathmore, for Clara of Killearn 23343, born Dec. 3, 1912; s. Cuthbert 1430; d. Mabel 2294 by Cuthbert 1st of Strathmore.
- 1215 III. (24.)—FRANCIS N. M. GOURLAY, Milton, Tyron, Thornhill, Dumfriesshire, for Flavia 3rd of Craigneston 23122, born Jan. 4, 1913; s. Kestrel 364; d. Flaccante 17th of Lochend 17427 by Queen's Messenger 2nd 761.
- 1216 E. N. & H. C.—FRANCIS N. M. GOURLAY, for Freda 3rd of Craigneston, H. C.—1719.

Highland.

Class 197.—*Highland Bulls, calving on or before 1913.* [1 entry.]

- 1210 I. (210.)—ROBERT GRAHAM, Auchmarnock, Tynholm, for Donald, born in Feb. 1912, bred by Kenneth McDonald Logan, Stranraer; s. Sirius 212; d. Rose 2; 10th of Breadalbane 6651 by Adhohach 2nd 1167.

Class 198.—*Highland Cows or Heifers (a-milk).* [1 entry.]

- 1211 I. (210.)—ROBERT GRAHAM, Auchmarnock, Tynholm, for Beag Odhar 2nd of Atholl 7247, yellow, born Jan. 31, 1914, calving May 21, 1914, bred by the Duke of Atholl, K.T., Blair Castle; s. Oughstaf of Kilchannaz 1566; d. Beag Odhar Atholl 5402 by Manish 1398.

Ayrshires.

Class 199.—*Ayrshire Bulls, calving on or before 1913.* [3 entries.]

- 1223 I. (210.)—JAMES HOWIE, Hillhouse, Kilmarnock, N.B., for Holehouse Marksman 10225, white and brown spots, born March 12, 1912, bred by Andrew Woodburn, Holehouse, Gullston; s. Holehouse White Zulu 8360; d. Holehouse Jean 8th 2365; s. Holehouse Royal Blend 6339.
- 1224 II. (26.)—JAMES HOWIE, for Low Milton Iron Duke, white and brown spots, born Feb. 19, 1913, bred by Thomas Logan, Low Milton, Maybole; s. Low Milton Wood Hope 10075; d. Low Milton Blossom 33838 by Overton Sultan 776.
- 1225 III. (24.)—JAMES HOWIE, for Barboigh Douglas 10773, white and brown spots, born March 1, 1913, bred by Alex. Watson, Barboigh, Mauchline; s. Barboigh Dun 9226; d. Barboigh Winifred 2nd 19135 by Barboigh Royal Osborne 7464.

Class 200a.—*Ayrshire Cows or Heifers (a-milk).* [14 entries.]

- 1231 I. (210.)—JAMES HOWIE, Hillhouse, Kilmarnock, for Willoxton Blossom 5th 23678, black and little white, born May 3, 1910, calving May 20, 1914, bred by Robert Gumpston, Willoxton, Mauchline; s. Willoxton St. John 863; d. Willoxton Blossom.
- 1232 II. (26.)—COL. G. J. FERGUSON BUCHANAN, Auchmarnock, Brechin, N.B., for Marilla 26017, brown and white, born May 14, 1910, calving July 1, 1913; s. Auchmarnock B.O.B. 7568; d. Auchmarnock Bl. ewer 23416 by Sir John of Old Grattney 4055.
- 1233 III. (24.)—WILLIAM KERR, Old Grattney, Gretna, Carlisle, for Old Grattney Yellow Bess 29824, white, born in April 1907, calving May 20, 1911, bred by A. A. W. Kerr; s. Sir John of Old Grattney 4055; d. Yellow Bess of Cairns 11356 by Heather Jack of Southwick 2120.

- 1227 E. N. & H. C.—ALEX. CROSS, Knockdon, Maybole, for Knockdon Lady Constance.

Class 200b.—*Ayrshire Cows or Heifers (a-milk).*

- 1226 I. (210.)—ALEXANDER CROSS, Knockdon, Maybole, N.B., for Knockdon Cairncaugh 4th 23418, mostly white, born April 29, 1910; s. Sir John of Old Grattney 4055; d. Knockdon Cairncaugh 3rd 19092 by Bright Lad 2nd of Knockdon.
- 1230 II. (26.)—WILLIAM DUNLOP, Dunure Mains, Ayr, for Meikle Kilmory Perfection 34580, brown and white, born in 1910, bred by Mrs. McAlister, Meikle Kilmory, s. Ardye King Edward 10112; d. Meikle Kilmory Shepherds 3rd 11059 by Flora 1st of Adamhill 3565.
- 1236 III. (24.)—WILLIAM KERR, Old Grattney, Gretna, Carlisle, for Old Grattney Sonnie 17th 23461, born in Feb. 1910, bred by W. & J. Kerr; s. Old Grattney Lady John 7496; d. Old Grattney Sonnie 10th 21067 by Sir John of Old Grattney 4055.
- 1225 E. N. & H. C.—ALEXANDER CROSS, for Knockdon Bloomer 2nd.

† £20 towards these Prizes were given by the Ayrshire Cattle Herd Book Society.

xcii *Award of Live Stock Prizes at Shrewsbury, 1914.*

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

Class 201.—Milk Yield Prizes, open to *Ayrshire Cows and Heifers entered in Class 200a only.* [6 entries.]

- 1727 I. (£10).—ALEXANDER CROSS, Knockdon, Maybole, N.B., for *Knockdon Lady Constance* 26424, white and brown, born Jan 14 1910, calved May 25, 1914; *Prize* Royal Review 7367, d. *Caroline* 2nd of Knockdon 11153 by *Prince* of Knockdon 1734 II. (£6).—JAMES HOWIE, for *Willston Blossom* 5th. (See Class 200a.)
1733 III. (£4).—COL. G. J. FERGUSON-BUCHANAN, for *Marilla*. (See Class 200a.)

British Holsteins.¹

Class 202.—British Holstein Bulls, calved in or before 1911. [15 entries.]

- 1750 I. (£10).—LORD RAYLEIGH, Whitelands, Witham, Essex, for *Fingringhoe Hector* 1231, black and white, born April 17, 1910, bred by Thomas B. Grubb, Fingringhoe, Colchester; d. *Lavender Laurel* 2282.
1743 II. (£8).—PERCY FORD, Molescroft Grange, Beverley, for *Routh Ringleader* 1241, black and white, born Feb. 20, 1911; s. *Routh Parade* 569, d. *Routh Dairymaid* 570.
1747 III. (£4).—I. B. JARMAY, Bulkeley Hall, Malpas, for *Gorstage Flashlight* 2211, black and white, born Aug. 16, 1911, bred by Mrs. M. H. Townshend, Gorstage Hall, Sandway; s. *Hedges Tuscon Duke* 1483, d. *Gorstage Chevin* 1466.
1739 IV. (£3).—ARTHUR S. BOWLEY, Gilston Park, Hartlow, for *Hedges Prince of Doncaster* 1465, black and white, born Nov. 22, 1911, bred by A. & J. Brown, Hedges Farm, St. Albans; s. *Park General Botha* 549, d. *Park Buttercup* 5088.
1753 E. N. & H. C.—RALPH WILLIAMSON, Rhyl Broughton Farm, Wrexham, for *Gilston Touchstone*.
C.—1751.

Class 203.—British Holstein Bulls, calved in 1912 or 1913. [14 entries.]

- 1764 I. (£10).—ERNST SEHMER, Teat, Pulborough, for *Wigginton Laird* 2227, black and white, born Oct. 4, 1912; s. *Becking Van Tromp* 981, d. *Becking Lady* 8802.
1750 II. (£8).—MISS ALICE DEBENHAM, Castle Hill, Ipswich, for *Woodcote Confidant* 2277, black and white, born Dec. 4, 1912; s. *Woodcote Andrew* 853, d. *Pebsham Faith* 3234 by *Pebsham Radium* 559.
1761 III. (£4).—GEOFFREY NABE, Macknade, Faversham, for *Macknade Frost* 2835, black and white, born Jan. 3, 1913; s. *Macknade Waspoff* 431, d. *Macknade Tundlaw* two 2568 by *Macknade Tatton* 425.
1754 IV. (£3).—ARTHUR S. BOWLEY, Gilston Park, Hartlow, for *Gilston Champion* 2888, black and white, born May 28, 1913; s. *Gilston Postle* 219, d. *Gilston Maud* 1858.
1759 E. N. & H. C.—HAROLD G. HOWARD, Bowers Hall, Pitsea, for *Hawstead Xerxes*.
H. C.—1760.

Class 204.—British Holstein Cows (in-milk), calved in or before 1910. [17 entries.]

- 1779 I. (£10).—LORD RAYLEIGH, Whitelands, Witham, Essex, for *Torling Musk* 4th 12694, black and white, born Oct. 2, 1908, calved May 2, 1914; s. *Xerxes* d. *Musk*.
1782 II. (£8).—ADAM SMITH, Lochlands, Larbert, Stirlingshire, for *Lochlands Madge* 2442, black and white, born Oct. 17, 1909, calved June 9, 1914; s. *Lochlands Hugo* 407.
1771 III. (£4).—A. & J. BROWN, Hedges Farm, St. Albans, for *Park Buttercup* 3096, black and white, born in 1905, calved March 12, 1914, bred by Henry C. Ford, Wheatley Park, Doncaster.
1780 IV. (£3).—ERNST SEHMER, Teat, Pulborough, for *Fairlight Wilhelmina* 1038, black and white, born in 1905, calved May 5, 1914, bred by W. W. Bravington, Teat, Baldon, Oxford.
1784 E. N. & H. C.—SIR PETER C. WALKER, BT., Osmaaston Manor, Derby, for *Leerock Alice*.
C.—1781.

Class 205.—British Holstein Heifers (in-milk), calved in 1911 or 1912. [5 entries.]

- 1785 I. (£10).—RICHARD FORD, Garton, Driffield, for *Garton Tilly* 8300, black and white, born March 9, 1912, calved June 13, 1914; s. *Sidley Mayfield Boy* 567, d. *Garton Tatton* 1229 by *Bombardier*.
1789 II. (£6).—ADAM SMITH, Lochlands, Larbert, Stirlingshire, for *Lochlands May* 10008, black and white, born June 30, 1911, calved Dec. 19, 1913; s. *Lochlands President* 413 d. *Lochlands Millie* 2442.

¹ £30 towards these Prizes and Silver Medals for the First Prize winners in each Class were given by the British Holstein Cattle Society.

Award of Live Stock Prizes at Shrewsbury, 1914. xviii

(Unless otherwise stated, each prize animal named below was bred by exhibitor.)

1759 III. (24.)—W. E. HARRISON, Wychmor Park, Burton-on-Trent, for **Lavenham Blackhead** 5th 9034, black and white, born Dec. 28, 1911, calved April 2, 1914, bred by Strutt & Parker, Whitelands, Wiltm; d. Lavenham Blackhead 4th 832 by Telling Juniper's Boy 713.

1760 R. N. & H. C.—MAJOR G. R. POWELL, Tynwycdd, Hirwaun, for **Cymric Frosty**, C.—1781.

Class 206.—British Holstein Heifers, calved in 1913. [17 entries.]

1798 I. (210.)—PERCY FORD, Molescroft Grange, Beverley, for **Routh Rachel** 2nd 1542, black and white, born March 10; s. Routh Reglander 1861, d. Routh Rachel 3028.

1800 II. (26.)—GEOFFREY N'NAME, Micknade, Faversham, for **Micknade Regress** 15378, black and white, born May 18; s. Micknade Wagon 433, d. Micknade Wingart Lady 2612.

1794 III. (24.)—A. & J. BROWN, Hedges Farm, St. Albans, for **Hedges Brandy Gem** 10882, born March 13; s. Hedges Highlander 1443, d. Hedges Brandy 1578.

1798 IV. (23.)—RICHARD FORD, Garton, Driffield, for **Garton Favourite** 14566, black and white, born April 15; s. Stanfield Victor 693, d. Garton Warrington Lady 1188.

1806 R. N. & H. C.—ADAM SMITH, Lochlands, Larbert, N.B., for **Lochlands Nemo**, C. 1790, 1791, 1793, 1795, 1797, 1799, 1801, 1802, 1803, 1804, 1806.

Class 207.—Milk Yield Prizes, open to British Holstein Cows and Heifers entered in Classes 204 and 206 only. [9 entries.]

1777 I. (210.)—MAJOR G. R. POWELL, Tynwycdd, Hirwaun, Glam., for **Cymric Cherry** 7149, black and white, born Jan. 3, 1910, calved June 11, 1914; s. Hector Macdonald 2nd, d. Charlotte of Marden by Royal Duke.

1780 II. (26.)—JOHN BROMET, Golf Links Farm, Tadcaster, for **Melford Woodbine** 1889, dun and white, born in 1907, calved March 23, 1914, bred by C. H. Westrop, Melford Place, Long Melford, Suffolk; s. Melford Wascash 467, d. Melford Caryl 2640.

Jerseys.¹

N.B.—In the Jersey Classes, the number inserted within brackets after the name of an animal indicates the number of such animal in the *Island Herd Book*. A number without brackets indicates that the animal is registered in the *English Jersey Herd Book*.

Class 208.—Jersey Bulls, calved in 1909, 1910, or 1911. [5 entries.]

1811 I. (210, & Champion 2.)—HORACE WALKER, Beach, Bilton, Glouc., for **Pallas Noble** 11096, whole colour, born March 14, 1911, bred by N. du Fort Jun., Trinity, Jersey; s. Noble of Oaklands 9586, d. Pallas 2nd 10634; P.S.H.C. by Savoyism 1572.

1807 II. (26, & R. N. for Champion 2.)—J. CARSON, Crystallbrook, The den Ross, Essex, for **Self Acting** 11147, whole colour, born May 22, 1909, bred by J. G. Gaudin, St. Clements, Jersey; s. Bruce 10870, d. Spectre's Fairy (1881) P.S.H.C. by Raleigh's Fairy Boy 9741.

1809 III. (24.)—LORD ROTHSCHILD, Tring Park, Herts., for **Fontaine's Star** 1949, whole colour, born April 7, 1910, bred by W. J. Labey, Grouville, Jersey; s. Fontaine's Chief 10942, d. Fontaine Dove (15156) P.S.H.C. by Malo's Raleigh 930.

1810 R. N. & H. C.—BARON BRUNO SCHRODER, The Dell, Englefield Green, for **Lord Steyne**.

Class 209.—Jersey Bulls, calved in 1912. [17 entries.]

1815 I. (210.)—W. M. JACKSON, Lygatts, near Potters Bar, for **Mabel's Star** 11413, whole colour, born April 14, bred by W. J. Labey, Grouville, Jersey; s. Fontaine's Star 10931, d. Mabel 56th (18597) P.S.H.C. by Fairy Lad 9967.

1816 II. (26.)—MRS. C. M. MCINTOSH, Havering Park, Romford, for **Goddington Noble** 11h 11335, whole colour, born April 18, bred by A. Miller-Hallett, Goddington, Chislehurst, Kent; s. Goddington Winks 10253, d. Goddington Bagatelle by Rover of Oaklands 8348.

1813 III. (24.)—JERSEY DE KNOOP, Calveley Hall, Tarporley, for **Calveley Peer** 11247, whole colour, born May 12; s. Violette's Laddie 10818, d. Little Duchess by Lucy's Champion 9236.

1814 R. N. & H. C.—MISS ENDEBY, Beckington, Bath, for **Beckington Champion**, H. C.—1812. C.—1818.

Class 210.—Jersey Bulls, calved in 1913. [17 entries.]

1827 I. (210.)—A. MILLER-HALLETT, Goddington, Chislehurst, Kent, for **Goddington Winks** 6th, broken colour, born April 19; s. Goddington Winks 10253, d. Goddington Bagatelle (vol. 20, p. 317) by Rover of Oaklands 8348.

¹ £30 towards these Prizes were given by the English Jersey Cattle Society.
 a Champion Prize of £5 given by the English Jersey Cattle Society for the best Bull in Classes 208-210.

xciv *Award of Live Stock Prizes at Shrewsbury, 1914.*

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

- 1830 II. (£6.)—LORD ROTHSCHILD, Tring Park, Herts., for *Merlin*, whole colour, born May 4, s. General Cowslip 10960, d. Miss Faerie 3rd 16736 by Perry Farm 10941.
 1824 III. (£4.)—MRS. EVELYN, Wotton House, near Dorking, for *Red Cloud*, whole colour, born Feb. 21, bred by J. H. Smith-Barry, Stowell Park, Pewsey, Wilts., d. Post Obit (vol. 18, p. 388) by Gay Boy 7510.
 1828 IV. (£3.)—LORD POLTIMORE, Poltimore Park, Exeter, for *Royal Castle*, whole colour, born March 18, bred by C. H. Le Cornu, St. Lawrence, Jersey, s. Noble's distinction, Nobleman 11224, d. Rose's Molly (18634) by Molly's Raleigh 11442.
 1834 V. (£3.)—HORACE WALKER, Beach, Bittou, Glos., for *Beach Guy*, whole colour, born Jan. 26; s. Mabel's Chief 11411, d. Foxglove 8th (vol. 24, p. 306) by Sir W. Oaklands 9366.
 1832 E. N. & H. C.—SIR EDWARD STERN, Fan Court, Chertsey, for *Balfour*, C.—1853.

Class 211.—Jersey Cows (in-milk), calved in or before 1910.
 [40 entries.]

- 1846 I. (£10 & Champion.)—JERSEY DE KNOOP, Calveley Hall, Tarporley, for *Scandals* (vol. 21, p. 416), broken colour, born Aug. 25, 1906, calved May 5, 1914, bred by J. Cabot, St. Clements, Jersey; s. Velveteen's Lad 9102, d. Heartless (11852) P.S.C. by Hearty Fox 8226.
 1856 II. (£8.)—A. MILLER-HALLETT, Goddington, Chislefield, Kent, for *Beautiful Mansion* (8201) P.S.C., whole colour, born May 18, 1909, calved April 22, 1914, bred by P. Le C. Mallet, St. Brelandes, Jersey; s. Boy Beauty 10531, d. Jersey's Mansion (12261) P.S.C. by Jockey 8242.
 1865 III. (£4.)—LORD ROTHSCHILD, Tring Park, Herts., for *Watkin's Plymouth Lady* (vol. 24, p. 442), whole colour, born April 10, 1910, calved June 21, 1914, bred by J. Le Brocq, St. Mary's, Jersey; s. Plymouth Lad 9388, d. Miss Watkin (11430) P.S.C. by Sir Watkin 7371.
 1869 IV. (£3.)—G. MURRAY SMITH, Gunley Hall, Market Harborough, for *Rozel's Pet 24th* (vol. 23, p. 407), broken colour, born April 3, 1903, calved May 21, 1914, bred by W. J. Phillot, Trinity, Jersey; s. Raleigh's Fairy Boy 9741, d. Rozel's Pet 18th (1516) P.S.C. by Majesty 8694.
 1859 V. (£3.)—A. MILLER-HALLETT, for *Wardress Beauty* (vol. 23, p. 411), broken colour, born May 1, 1909, calved April 18, 1914, bred by E. E. Leonard, St. Omer, Jersey; s. Warder's Champion (3826).
 1847 E. N. & H. C.—JERSEY DE KNOOP, for *Silver End*.
 1852, 1880, 1894 (S.P.)—MRS. EVELYN, Wotton House, near Dorking, for *Sweet Daisy*, *Wotton Daisy Noble*, and *Wotton Parquerette*.
 H. C.—1842, 1853, 1854, 1871. C.—1843, 1869.

Class 212.—Jersey Heifers (in-milk), calved in 1911. [16 entries.]

- 1888 I. (£10 & R. N. for Champion.)—J. H. SMITH-BARRY, Stowell Park, Pewsey, Wilts., for *Last of the Lilies*, whole colour, born March 2, calved April 27, 1914; s. Fleur de Lys 9583, d. Lydia Languish (vol. 18, p. 351) by Gay Boy 7510.
 1880 II. (£6.)—MRS. EVELYN, Wotton House, near Dorking, for *Wotton Daisy Noble*, whole colour, born Feb. 9, calved June 13, 1914; s. Pavillon's Noble 10035, d. Sweet Daisy (vol. 22, p. 430) by Handyman 10271.
 1881 III. (£4.)—MRS. C. M. McINTOSH, Havering Park, Romford, for *Gloralia*, whole colour, born March 25, calved June 1, 1914, bred by J. Joicey, Poulton Priors, Farnford, Glos.; s. Fairy's Due 10597, d. Glorinia (vol. 21, p. 310) by Chief Justice 7158.
 1881 IV. (£3.)—LORD ROTHSCHILD, Tring Park, Herts., for *Brown May*, whole colour, born June 12, calved Nov. 21, 1913, bred by F. J. Bisson, St. Lawrence, Jersey; s. Juggler 10906, d. Jersey Queen 3rd (15809) P.S.C. by Molly's Combination 10056.
 1878 E. N. & H. C.—JERSEY DE KNOOP, Calveley Hall, Tarporley, for *Calveley Georgina*.
 H. C.—1878, 1887.

Class 213.—Jersey Heifers (in-milk), calved in 1912. [20 entries.]

- 1907 I. (£10.)—LORD ROTHSCHILD, Tring Park, Herts., for *Grouville Diamond*, whole colour, born April 3, calved June 25, 1914, bred by J. Bertram, Grouville, Jersey; s. Fortune's Star 10651, d. Grouville's Pearl (11949) P.S.C. by Fauvies Mine 9175.
 1893 II. (£8.)—J. CARSON, Crystalbrook, Theydon Bois, Essex, for *Combination's Belle*, whole colour, born Feb. 25, calved April 11, 1914; s. Combination 10523, d. Belladonna 3rd (vol. 22, p. 250) by Honest Lad 9279.
 1905 III. (£4.)—LORD ROTHSCHILD, for *Costume*, whole colour, born May 21, calved June 13, 1914, bred by F. P. Messervy, Trinity, Jersey; s. Combination's Premier 10009, d. Trinity Leda (13440) P.S.C. by Trinity Sultan 10475.

¹ Champion Prize of £5 given by the English Jersey Cattle Society for the best Cow or Heifer in Classes 211-214.

² Special Prize of £10 10s. given by the Royal Jersey Agricultural Society for the best Cow and two of her progeny, in Classes 208-214, the progeny to be bred by exhibitor.

xvii *Award of Live Stock Prizes at Shrewsbury, 1914.*

[Unless otherwise stated, each prize animal named below was "bred by ex.]

Class 218.—Guernsey Bulls, calved in 1912. [8 entries.]

- 1949 I. (£10, & Champion.¹)—SIR J. H. B. D. TICHBORNE, BT., Tichborne Park, Alton, for *Clara's Delight* 2570, light red and little white, born May 24, bred by P. Mahy, Maple Lodge, Vale, Guernsey; s. *Sequel's Delight* 2442 P.S., R.G.A.S., 16th of the Rouvets 5416 P.S., R.G.A.S.
- 1942 II. (£6, & R. N. for Champion.¹)—JOHN C. FORSTER, Clatford Mills, Alton, for *Clatford Jewel* 2717, light red and white, born March 2, bred by P. Les Polleys, Guernsey; s. *Billy's France* 2194 P.S., R.G.A.S., d. *France* 1916 P.S., R.G.A.S.
- 1943 III. (£4.)—SIR EVERARD A. HAMBRÖ, K.C.V.O., Milton Abbey, Blandford, for *Milton Hubert* 2799, fawn, born June 13, bred by A. K. Parsons Kings Mill, Guernsey; s. *Sequel's Delight* 2442 P.S., d. *Parson's Snowdrop* 3152 P.S., R.G.A.S.
- 1947 R. N. & H. C.—FRANK PRATT-BARLOW, Lynchmere House, Haslemere, for *Clatford Hero* 3rd, H. C.—1945.

Class 219.—Guernsey Bulls, calved in 1913. [16 entries.]

- 1951 I. (£10.)—G. F. FERRAND, Morland Hall, Alton, Hauts, for *Reliance* of Morland 2835, fawn, born June 13, bred by A. W. Bailey Hawkins, Stagenhoe Park, Weymouth, Herts.; s. *Merton Reliance* 2338, d. *Tempsford Beauty* 7111 by Merton Dairyman 1907.
- 1904 II. (£6.)—J. F. REMNANT, M.P., The Grange, Twyford, Berks., for *Dene Beauty* 2720, light fawn and white, born March 12; s. *Honfleur* of Newgrove 2308, d. *Long* 97th 8535 by Goldseeker 1831.
- 1952 III. (£4.)—W. H. N. GOSCHEN, Durrington House, Harlow, for *Rose King* 1947, red and white, born July 21, bred by H. G. Davis, Hartfield, Hayes, Kent; s. *Hay's Prime Minister* 2208, d. *Rose of the Counture* 2nd 5901 by Sly of the Bourdeaux 14, 1110 P.S., R.G.A.S.
- 1962 IV. (£3.)—FRANK PRATT-BARLOW, Lynchmere House, Haslemere, for *Lynchmere Lord Roberts* 2nd 2794, lemon and white, born July 5; s. *Robert's Boy* s. *Sequel* 2496, d. *Clatford Meadow Sweet* 8015 by *Chieftain* 63 P.S., R.A.A.S.
- 1981 R. N. & H. C.—FRANK PRATT-BARLOW, for *Lynchmere Lord Roberts*, H. C.—1953, 1958, 1960.

Class 220.—Guernsey Cows (in-milk), calved in or before 1909.

[12 entries.]

- 1877 I. (£10, & Champion.²)—SIR J. H. B. D. TICHBORNE, BT., Tichborne Park, Alton, for *Rownham's Gloriosa* 7853, fawn and white, born Jan. 7, 1906, calved May 19, 1914, bred by C. F. Dixon, Rownham's Farm, Nurding, Southampton; s. *Robind* of Seaview 4th 1611, d. *Rose of the Spurs* 4th 7585 by *Lord Ovid* 1055 P.S., R.G.A.S.
- 1370 II. (£6.)—A. W. BAILEY HAWKINS, Stagenhoe Park, Weymouth, Herts., for *Tempsford Beauty* 7111, red and white, born Jan. 7, 1907, calved June 4, 1914, bred by the late Sir G. S. Mackenzie, K.C.M.G., C.B., Tempsford Hall, Sandy, Beds.; s. *Merna* Dairyman 1688, d. *Merton Utility* 6269 by *King's Champion*.
- 1967 III. (£4.)—W. T. CURTIS, Fitzhells, Ewell, Surrey, for *Polly* 3rd of Ewell 16247, light fawn, born Oct. 9, 1903, calved May 1, 1914, bred by J. Martin, King's Mill, Castle, Guernsey; s. *Golden Hero* of l'Etchennerie 1367 P.S., R.G.A.S., d. *Polly* 2nd of the Mill 2749 P.S., R.G.A.S.
- 1976 IV. (£3.)—FRANK PRATT-BARLOW, Lynchmere House, Haslemere, for *Rosy* of *Les Mauxmarquis* 9179, light red, born March 16, 1903, calved May 3, 1914, bred by A. Robert, Les Mauxmarquis, St. Andrews, Guernsey.
- 1969 R. N. & H. C.—SIR EVERARD A. HAMBRÖ, K.C.V.O., for *Rose des Houards* 50th, H. C.—1973.

Class 221.—Guernsey Cows or Heifers (in-milk), calved in 1910 or 1911.

[14 entries.]

- 1978 I. (£10, & R. N. for Champion.²)—G. F. FERRAND, Morland Hall, Alton, Hauts, for *Morland Emley Belle* 10214, fawn, born Jan. 6, 1911, calved June 13, 1914, bred by James Le Page, Neuve Maison, Castel, Guernsey; s. *Clairvoyante's Sequel* 2279 P.S., R.G.A.S., d. *Lady Pellin* 3114 P.S., R.G.A.S.
- 1985 II. (£6.)—SIR H. F. LENNARD, BT., Wickham Court, West Wickham, Kent, for *Lady No. 93* 9002, fawn and white, born April 18, 1911, calved April 16, 1914; s. *Goldseeker* 1937, d. *Lady No. 91* 7334 by *Hanbury* 1669.
- 1992 III. (£4.)—SIR EVERARD A. HAMBRÖ, K.C.V.O., Hayes Place, Hayes, Kent, for *Hayes Wena* 4th 9049, fawn and white, born Feb. 19, 1911, calved May 17, 1914; s. *Hayes Coronation* 1836, d. *Wena* 5700 by *Liberty*.
- 1998 R. N. & H. C.—H. FITZWALTER PLUMPTRE, for *Polly* of *La Croix* 10th, H. C.—1973, 1981, 1991.

¹ Champion Prize of £5 given by the English Guernsey Cattle Society for the best Bull in Classes 217-219.

² Champion Prize of £5 given by the English Guernsey Cattle Society for the best Cow or Heifer in Classes 220-223.

xviii *Award of Live Stock Prizes at Shrewsbury, 1914.*

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

2033 III. (£4.)—L. CURRIE, for *Minley Mistress* 1253 F.S., born in 1908, calv. May 7, 1914, breeder unknown.

2035 R. N. & H. C.—EDMUND ROYDS, M.P., for *Caythorpe Blossom* 2nd. H. C.—2039. C.—2031.

Class 227.—Kerry Heifers (in-milk), calved in 1911. [4 entries.]

2040 I. (£10.)—L. CURRIE, Minley Manor, Farnborough, Hants., for *Minley Ivy*, born 1911, calved May 20, 1914, breeder unknown.

2041 II. (£8.)—A. ARTHUR LYLE, Beel House, Amersham Common, Bucks., for *Bessie*, born May 15, calved May 31, 1914; s. *Shamus* 229, d. *Norah* 1257 F.S.

2043 III. (£4.)—EDMUND ROYDS, M.P., Holy Cross, Caythorpe, Grantham, for *Caythorpe Gort*, born Feb. 23, calved May 13, 1914; s. *Kilmorna Duke* 16th 250, d. *Gort Beauty* 2nd 1375 by *Gort King* 548.

Class 228.—Kerry Heifers, calved in 1912 or 1913. [7 entries.]

2044 I. (£10.)—JOHN L. AMES, Thistleyhaugh, Longhorsley, Northumberland, for *Walton Lanky* 2nd (vol. 13, p. 8), born July 16, 1912, bred by Lady Greenall, Walton Hall, Warrington; s. *Walton Diver* 270, d. *Walton Lanky* 1522 by *Walton Apollo* 1st.

2045 II. (£6.)—L. CURRIE, Minley Manor, Farnborough, Hants., for *Minley Tabby*, calv. 13, p. 8), born March 30, 1912; s. *Minley Rover* 287, d. *Minley Miznonette* 1247 F.S.

2046 III. (£4.)—A. ARTHUR LYLE, Beel House, Amersham Common, Bucks., for *Maire*, born April 19, 1912; s. *Shamus* 229, d. *Maire* 1428 F.S.

2050 R. N. & H. C.—EDMUND ROYDS, M.P., Holy Cross, Caythorpe, Grantham, for *Caythorpe Amy*. H. C.—2048.

Class 229.—Milk Yield Prizes, open to Kerry Cows and Heifers entered in Classes 226 and 227 only. [8 entries.]

2033 I. (£10.)—L. CURRIE, for *Minley Mistress*. (See Class 228.)

2031 II. (£8.)—JOHN L. AMES, Thistleyhaugh, Longhorsley, Northumberland, for *Walton Fame* 1490 F.S., born in 1908, calved May 7, 1914, breeder unknown.

2038 III. (£4.)—T. WAITE, for *Kilmorna Waterville* 1st. (See Class 228.) H. C.—2032, 2036.

Dexters.¹

N.B.—In the Dexter Classes, the number inserted within brackets after the name of an animal indicates the number of such animal in the Irish Dexter Herd Book. A number without brackets indicates that the animal is registered in the English Dexter Herd Book.

Class 230.—Dexter Bulls, calved in 1909, 1910, 1911, or 1912. [7 entries.]

2051 I. (£10, & Champion.)—HIS MAJESTY THE KING, Sandringham, for *Jack Robin* 507, black, born in 1910, breeder unknown.

2053 II. (£8.)—BALDOMEIRO DE BERTODANO, Cowbridge House, Malmesbury, for *Cowbridge Prince* 321, black, born in 1912, breeder unknown.

2055 III. (£4.)—MRS. F. MORANT, Brokenhurst Park, Hants., for *Spalpeen* 515, black, born Sept. 23, 1912, bred by Baron Dimdale, Meesden Manor, Buntingford; s. *Compton Don* 428, d. *Meesden Sweet Briar* 1980 by *La Mancha Union Jack* 37.

2052 R. N. & H. C.—COL. THE HON. BEN BATHURST, M.P., Polebrook, Haver, Kent, for *Poppun*. H. C.—2054.

Class 231.—Dexter Cows (in-milk), calved in or before 1910. [14 entries.]

2067 I. (£10, & R. N. for Champion.)—MRS. F. MORANT, Brokenhurst Park, Hants., for *Harley Coy* 1553, black, born May 11, 1907, calved April 24, 1914, bred by G. Haggood, Harley Lodge, Wimborne; s. *Kingswood Comely Boy* 264, d. *Harley Signorina* 1145 by *Great Malvern* 178.

2064 II. (£8.)—H. MARTIN GIBBS, Barrow Court, Bristol, for *Barrow Buttercup* 2nd 1528, black, born June 4, 1909, calved April 19, 1914; s. *Barrow Count* 383, d. *Barrow Buttercup* 1876 F.G.

2058 III. (£4.)—HIS MAJESTY THE KING, Sandringham, for *Darbie* 2015, black, born in 1909, calved May 25, 1914, breeder unknown.

2069 R. N. & H. C.—THE HON. MRS. CLAUD PORTMAN, Goldicote, Stratford-on-Avon, for *Black Child*. H. C.—2050, 2058. C.—2040, 2063.

¹ £15 towards these Prizes were given by the English Kerry and Dexter Cattle Society.

² Challenge Cup given by the English Kerry and Dexter Cattle Society for the best Animal in Classes 230-233.

Award of Live Stock Prices at Shrewsbury, 1911. xviii

[Unless otherwise stated, each prize animal named below was killed by exhibition.]

Class 232.—*Dexter Heifers (in-milk), calved in 1911.* [5 entries.]

- 267 I. (£10.)—BALDOWHO DE BERTOLANO, Cowbridge House, Malmsbury, for Cowbridge Flirt 2nd 1888, black, born May 6, calved May 7, 1911; s. Cowbridge s. s. Pandly 428, d. Cowbridge Flirt 1572 by Cowbridge General 351.
 268 II. (£6.)—THE HON. MRS. CLAUD PORTMAN, Goldacre, Stratford-on-Avon, for La Mancha Glad Eye 2130, black, calved May 29, 1911, bred by R. Tait Robertson, The Hutch, Malahide, Co. Dublin.
 269 III. (£4.)—H. MARTIN GIBBS, Barrow Court, Bristol, for Barrow Emerald 3rd 2077, black, born May 13, calved May 7, 1911; s. Barrow Bachelors 413, d. Barrow Emerald 2nd 1831 F.S.
 264 R. N. & H. C.—MRS. E. MORANT, Brokenhurst Park, Hants., for Harley Caroline.

Class 233.—*Dexter Heifers, calved in 1912 or 1913.* [15 entries.]

- 267 I. (£10.)—HIS MAJESTY THE KING, Sandringham, for Diadem 2nd, 1st, black, born in 1912, breeder unknown.
 268 II. (£6.)—THE HON. MRS. CLAUD PORTMAN, Goldacre, Stratford-on-Avon, for La Mancha Honey 2130, black, born April 29, 1912, bred by J. H. Graham, Slaney Park, Balingglass, co. Wicklow.
 269 III. (£4.)—H. MARTIN GIBBS, Barrow Court, Bristol, for Barrow Emerald 4th, calved 13, p. 47, black, born April 28, 1912; s. Barrow Bachelors 413, d. Barrow Emerald 2nd 1831 F.S.
 265 R. N. & H. C.—THE HON. MRS. CLAUD PORTMAN, for La Mancha Found Again. H. C.—2078, 2079, 2080, 2081.

Class 234.—*Milk Yield Prizes, open to Dexter Cows and Heifers entered in Classes 231 and 232 only.* [8 entries.]

- 268 I. (£10.)—HIS MAJESTY THE KING, Sandringham, for Dusky 205, black, born in 1910, calved April 22, 1911, breeder unknown.
 269 II. (£6.)—FREDERICK PHILIPS PEYTON, Woodcote Lodge, near Kewbury, for Pujingilla 2155, black, born March 29, 1910, calved May 18, 1911; s. Gort Hero 2nd 1545, d. Gort Fancy 3rd 1700 by Gort Punch (500).

Butter Tests.¹ [79 entries.]

Class 235a.—*Cows (in-milk), exceeding 900 lb. live weight.*

- 1851 I. (£15, & S. M.²)—J. H. SMITH-BARRY, for Keywood Bluebell. (See Class 216.)
 1395 II. (£10.)—JOHN EVENS, for Burton Diamond. (See Class 127.)
 1836 III. (£5.)—GLOSTVENOR BUNCH, for Chalden Ditch. (See Class 216.)
 Certificate of Merit.³—1851, 1855.
 H. C.—1891, 1129, 1208, 1219, 1420, 1452, 1454, 1456, 1458, 1481, 1472.

Class 235b.—*Cows (in-milk) not exceeding 900 lb. live weight.*

- 1852 I. (£15, & S. M.²)—MRS. EVELYN, for Sweet Daisy. (See Class 216.)
 1853 II. (£10, & S. M.²)—J. H. SMITH-BARRY, for Marionette. (See Class 216.)
 1854 III. (£5.)—J. H. SMITH-BARRY, for Musette (cal. 23, p. 265) whole colour, born July 30, 1909, calved March 17, 1911; s. Fleur de Lys 9583, d. Margot 1 by Sportive 7637.
 Certificate of Merit.³—1857.

SHEEP.

Oxford Downs.

Class 236.—*Oxford Down Shearling Rams.* [19 entries.]

- 2601 I. (£10.)—SIR JAMES HORBLICK, BT., Cowley Manor, near Cheltenham.
 2104 II. (£5.)—H. W. STUBBS, The Grounds, Aylesbury, Bucks.
 2593 III. (£3.)—MRS. ALICE DE ROTHSCHILD, Waddesdon Manor, Aylesbury.
 2592 R. N. & H. C.—ALBERT BRASSLEY, Hextthrop Park, Chipping Norton.
 H. C.—2094, 2097, 2107, 2109. C.—202, 2068, 2100, 2110.

¹ Prizes given by the English Jersey Cattle Society.

² Gold Medal, Silver Medal, and Bronze Medal given by the English Jersey Cattle Society for the three Jersey animals obtaining the greatest number of points in the Butter Tests.

³ Certificates of Merit given by the English Jersey Cattle Society for Jersey Cows entered in or eligible for entry in the English Jersey Herd Book not being Prize-Winners in the Tests, obtaining the following points:—Cows under five years old obtaining 30 points; Cows five years old and upwards obtaining 50 points.

Award of Live Stock Prizes at Shrewsbury, 1914.

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

Class 237.—Oxford Down Ram Lambs. [12 entries.]

- 2111 I. (£10.)—GEORGE ADAMS & SONS, Royal Prize Farm, Faringdon, Berks.
 2118 II. (£5.)—SIR JAMES HORLICK, BT., Cowley Manor, near Cheltenham.
 2117 III. (£3.)—R. W. HOBBS & SONS, Kelmescott, Lechlade.
 2122 IV. (£2.)—H. W. STILGOE, The Grounds, Adderbury, Banbury.
 2115 R. N. & H. C.—TOM GARNE, Ladbarrow, Aldersworth, Northleach, Glos.
 H. C.—2114, 2118, 2121. C.—2122, 2113, 2119.

Class 238.—Three Oxford Down Ram Lambs. [13 entries.]

- 2127 I. (£10.)—TOM GARNE, Ladbarrow, Aldersworth, Northleach, Glos.
 2130 II. (£5.)—R. W. HOBBS & SONS, Kelmescott, Lechlade.
 2135 III. (£3.)—H. W. STILGOE, The Grounds, Adderbury, Banbury.
 2151 IV. (£2.)—SIR JAMES HORLICK, BT., Cowley Manor, near Cheltenham.
 H. C.—2126, 2139, 2133. C.—2125, 2132.

Class 239.—Three Oxford Down Shearling Ewes. [6 entries.]

- 2138 I. (£10.) & 2139 III. (£3.)—SIR JAMES HORLICK, BT., Cowley Manor, Cheltenham.
 2136 II. (£5.)—ALBERT BRASSEY, Heythrop Park, Chipping Norton.
 2137 R. N. & H. C.—MISS ALICE DE ROTHSCHILD, Waddesdon Manor, Aylesbury.
 H. C.—2140.

Class 240.—Three Oxford Down Ewe Lambs. [11 entries.]

- 2152 I. (£10.)—H. W. STILGOE, The Grounds, Adderbury, Banbury.
 2147 II. (£5.)—R. W. HOBBS & SONS, Kelmescott, Lechlade.
 2149 III. (£3.)—SIR JAMES HORLICK, BT., Cowley Manor, near Cheltenham.
 2145 R. N. & H. C.—WILLIAM ARKELL, Kempford, Fairford, Glos.
 H. C.—2148, 2150. C.—2142, 2143, 2146.

Shropshires.¹

Class 241.—Shropshire Two-Shear Rams. [14 entries.]

- 2153 I. (£10. & Champion.)—KENNETH W. MILNES, Stanway Manor, Church Stretton.
 2153 II. (£5.)—A. S. BERRY, Shenstone Hall, Lichfield.
 2164 III. (£3.) & 2163 R. N. & H. C.—THOMAS S. MINTON, Montford, Shrewsbury.
 2161 IV. (£2.)—MRS. W. F. INGE, Thorpe, Tamworth, for Thorpe Sentry.
 H. C.—2155, 2158. C.—2154.

Class 242.—Shropshire Shearling Rams. [23 entries.]

- 2186 I. (£10. & R. N. for Champion.)—EDWARD CRAIG TANNER, Shrawardine, Shrewsbury, for ram, bred by the late Alfred Tanner.
 2177 II. (£5.)—MRS. W. F. INGE, Thorpe, Tamworth.
 2178 III. (£3.)—J. J. BOWEN, Whitehouse, Barnston, Birkenhead, for ram, bred by Lord Richard Cavendish, Holker Hall, Cark-in-Cartmel.
 2180 IV. (£2.)—THOMAS S. MINTON, Montford, Shrewsbury.
 2163 R. N. & H. C.—EDWARD NOCK, Harrington Hall, Shifnal.
 H. C.—2167, 2171, 2182, 2184, 2187, 2189. C.—2178, 2179.

Class 243.—Three Shropshire Shearling Rams (Vixies). [15 entries.]

- 2201 I. (£10.)—T. & S. J. SIMON, Tern Hill, Market Drayton.
 2203 II. (£5.)—EDWARD CRAIG TANNER, Shrawardine, Shrewsbury, for rams, bred by the late Alfred Tanner.
 2190 III. (£3.)—JOHN BARNET, Norton Wood Farm, Market Drayton.
 2193 IV. (£2.)—I. J. BREWIN, Whitehouse, Barnston, Birkenhead.
 2202 V. (£2.)—LIEUT.-COL. H. P. SYKES, Longford Hall, Newport, Salop.
 2199 R. N. & H. C.—THOMAS PARTON, Weston Hall, Crews.
 H. C.—2197, 2198.

Class 244.—Five Shropshire Shearling Rams. [11 entries.]

- 2205 I. (£15.)—A. S. BERRY, Shenstone Hall, Lichfield.
 2211 II. (£10.)—MRS. W. F. INGE, Thorpe, Tamworth.
 2213 III. (£5.)—THOMAS S. MINTON, Montford, Shrewsbury.
 2212 IV. (£2.)—KENNETH W. MILNES, Stanway Manor, Church Stretton.
 2214 R. N. & H. C.—EDWARD NOCK, Harrington Hall, Shifnal, Salop.
 H. C.—2207, 2209, 2215. C.—2206.

Class 245.—Three Shropshire Ram Lambs. [8 entries.]

- 2223 I. (£10.)—EDWARD NOCK, Harrington Hall, Shifnal, Salop.
 2217 II. (£5.)—RICHARD E. BURCH, Bryn Eryn, Colwyn Bay.
 2222 III. (£3.)—THOMAS S. MINTON, Montford, Shrewsbury.
 2220 R. N. & H. C.—MRS. W. F. INGE, Thorpe, Tamworth.
 H. C.—2221.

¹ Prizes given by the Oxford Down Sheep Breeders' Association.

² £22 towards these Prizes were given by the Shropshire Sheep Breeders' Association, and £189 by the Shrewsbury Local Committee.

³ Champion Prize of £10 given by the Shropshire Sheep Breeders' Association for the best Ram in Classes 241 and 242.

Award of Live Stock Prizes at Shrewsbury, 1914. 61

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."]

Class 246.—Three Shropshire Ram Lambs (*Novice*). [13 entries.]

- 226 I. (410.)—J. J. BREWIN, Whitehouse, Barnston, Birkenhead.
 226 II. (45.)—EDWARD CRAIG TANNER, Shrawardine, Shrewsbury.
 226 III. (43.)—T. & S. J. SIMON, Fern Hill, Market Drayton.
 226 IV. (42.)—THE DUKE OF WESTMINSTER, Eaton Hall, Chester.
 226 R. H. & H. C.—ANDREW BICKLEY, Newton-on-the-Hill, Shrewsbury.
 H. C.—2225, 2228. C.—2257, 2259.

Class 247.—Shropshire Shearling Ewes. [10 entries.]

- 226 I. (415.)—MRS. W. F. INGE, Thorpe, Tamworth.
 226 II. (410.)—KENNETH W. MILNES, Stanway Manor, Church Stretton.
 226 III. (45.)—J. J. BREWIN, Whitehouse, Barnston, Birkenhead, for ewes bred by Lord Richard Cavendish, Holker Hall, Cark-in-Cartmel.
 226 IV. (42.)—THOMAS S. MINTON, Montford, Shrewsbury.
 226 R. H. & H. C.—RICHARD E. BIRCH, Bryn Eryn, Colwyn Bay.
 H. C.—2261, 2264. C.—2214, 2216.

Class 248.—Three Shropshire Shearling Ewes. [12 entries.]

- 226 I. (410.)—THOMAS S. MINTON, Montford, Shrewsbury.
 226 II. (45.)—J. J. BREWIN, Whitehouse, Barnston, Birkenhead, for ewes bred by Lord Richard Cavendish, Holker Hall, Cark-in-Cartmel.
 226 III. (42.)—RICHARD E. BIRCH, Bryn Eryn, Colwyn Bay.
 226 IV. (42.)—MRS. W. F. INGE, Thorpe, Tamworth.
 226 R. H. & H. C.—KENNETH W. MILNES, Stanway Manor, Church Stretton.
 H. C.—2265.

Class 249.—Ten Shropshire Shearling Ewes. [4 entries.]

- 226 I. (415.)—THOMAS S. MINTON, Montford, Shrewsbury.
 226 II. (410.)—KENNETH W. MILNES, Stanway Manor, Church Stretton.
 226 III. (45.)—THOMAS CARTON, Weston Hall, Crewe.
 226 IV. (42.)—FRANK BIBBY, Hardwicke Grange, Shrewsbury.

Class 250.—Ten Shropshire Breeding Ewes, which have reared Lambs in 1914. [7 entries.]

- 226 I. (415.)—KENNETH W. MILNES, Stanway Manor, Church Stretton.
 226 II. (410.)—MRS. W. F. INGE, Thorpe, Tamworth.
 226 III. (45.)—THOMAS S. MINTON, Montford, Shrewsbury.
 226 IV. (42.)—FRANK BIBBY, Hardwicke Grange, Shrewsbury.

Class 251.—Three Shropshire Ewe Lambs. [17 entries.]

- 226 I. (410.)—EDWARD CRAIG TANNER, Shrawardine, Shrewsbury.
 227 II. (45.)—MRS. W. F. INGE, Thorpe, Tamworth.
 228 III. (43.)—KENNETH W. MILNES, Stanway Manor, Church Stretton.
 226 IV. (42.)—T. & S. J. SIMON, Fern Hill, Market Drayton.
 227 V. (45.)—J. J. BREWIN, Whitehouse, Barnston, Birkenhead.
 227 R. H. & H. C.—RICHARD E. BIRCH, Bryn Eryn, Colwyn Bay.
 H. C.—2260, 2263. C.—2262, 2264.

Class 252.—Three Shropshire Yearling Ewes, shown in their wool. [11 entries.]

- 228 I. (415.)—A. S. BERRY, Shenstone Hall, Lichfield.
 226 II. (410.)—EDWARD CRAIG TANNER, Shrawardine, Shrewsbury, for ewes bred by the late Alfred Tanner.
 226 III. (45.)—EDWARD NOCK, Harrington Hall, Shifnal, Salop.
 227 IV. (42.)—JOHN BARNETT, Norton Wood Farm, Market Drayton.
 228 R. H. & H. C.—MRS. W. F. INGE, Thorpe, Tamworth.
 H. C.—2262.

Class 253.—Group Class of not less than Four Shropshire Sheep exhibited in classes 241–252. [9 entries.]

- G I. (415.)—THOMAS S. MINTON, Montford, Shrewsbury.
 F II. (410.)—KENNETH W. MILNES, Stanway Manor, Church Stretton.
 I E. H. & H. C.—EDWARD CRAIG TANNER, Shrawardine, Shrewsbury.

Southdowns.

Class 254.—Southdown Two Shear Rams. [11 entries.]

- 2300 I. (410, & R. N. for Champion.)—W. M. CAZALET, Fairdown, Cambridge.
 2301 II. (45.)—SIR JEREMIAH COLMAN, BT., Ganton Park, Surrey.
 2301 III. (43.)—HIS MAJESTY THE KING, Sandringham.
 2300 R. H. & H. C.—CAPT. DENNOT MICALMONT, Cro Kiforia, Newmarket.
 H. C.—2305. C.—2264.

* Prizes given by the Southdown Sheep Society.
 Champion Gold Medal given by the Southdown Sheep Society for the best Ram in Classes 254 and 255.

ciif *Award of Live Stock Prizes at Shrewsbury. 1911*

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

Class 255.—Southdown Shearling Rams. [19 entries.]

- 2322 I. (£10, & Champion.)¹—LADY WERNHER, Luton Hoo, Luton.
 2320 II. (£5).—CAPT. DERMOT MCCALMONT, Crookfords, Newmarket.
 2319 III. (£3).—F. H. JENNINGS, Cockfield Hall, Bury St. Edmunds.
 2315 R. N. & H. O.—W. M. CAZALET, Fairbairne, Tonbridge.
 H. O.—2314, 2315, 2324, 2325. C.—2321.

Class 256.—Three Southdown Shearling Rams.² [11 entries.]

- 2327 I. (£10).—LADY WERNHER, Luton Hoo, Luton.
 2326 II. (£5).—CAPT. DERMOT MCCALMONT, Crookfords, Newmarket.
 2320 III. (£3).—C. W. ADKINS, Babraham Hall, Cambridge.
 2322 R. N. & H. O.—SIR JEREMIAH COLMAN, BT., Gatton Park, Surrey.
 C.—2329.

Class 257.—Three Southdown Ram Lambs. [13 entries.]

- 2348 I. (£10).—CAPT. DERMOT MCCALMONT, Crookfords, Newmarket.
 2361 II. (£5).—JAMES R. WEST, Alcot Park, Stratford-on-Avon.
 2342 III. (£3).—SIR JEREMIAH COLMAN, BT., Gatton Park, Surrey.
 2347 IV. (£2).—F. H. JENNINGS, Cockfield Hall, Bury St. Edmunds.
 2350 R. N. & H. O.—LADY WERNHER, Luton Hoo, Luton.
 H. O.—2346. C.—2359.

Class 258.—Three Southdown Shearling Ewes. [8 entries.]

- 2355 I. (£10, & Champion.)³—SIR JEREMIAH COLMAN, BT., Gatton Park, Surrey.
 2358 II. (£5, & R. N. for Champion.)³—CAPT. DERMOT MCCALMONT, Crookfords, Newmarket.
 2347 III. (£3).—F. H. JENNINGS, Cockfield Hall, Bury St. Edmunds.
 2350 R. N. & H. O.—LADY WERNHER, Luton Hoo, Luton.
 C.—2352, 2353, 2354, 2356.

Class 259.—Three Southdown Ewe Lambs. [14 entries.]

- 2355 I. (£10).—THE EARL OF DERBY, Hatchfield Farm, Newmarket.
 2354 II. (£5).—SIR JEREMIAH COLMAN, BT., Gatton Park, Surrey.
 2372 III. (£3).—LADY WERNHER, Luton Hoo, Luton.
 2370 IV. (£2).—CAPT. DERMOT MCCALMONT, Crookfords, Newmarket.
 2368 R. N. & H. O.—REGINALD S. HICKS, Wilbraham Temple, Cambs.
 H. O.—2373. C.—2361.

Hampshire Downs.

Class 260.—Hampshire Down Two-Shear Rams.⁴ [7 entries.]

- 2377 I. (£10), & 2378 R. N. & H. O.—J. A. MORRISON, Berwick House, Hindon, Salisbury.
 2375 II. (£5).—ALFRED E. BLACKWELL, The Home Farm, Chipperfield, King's Langley, Herts., for Briton D 306, bred by James Goldsmith, Blenworth, Hordean.

Class 261.—Hampshire Down Shearling Rams. [20 entries.]

- 2382 I. (£10).—ALFRED E. BLACKWELL, The Home Farm, Chipperfield, King's Langley, Herts., for ram, bred by James Flower, Chilmark, Salisbury.
 2400 II. (£5).—B. J. WATERS, Fiamstone, Bishopcote, Salisbury.
 2390 III. (£3).—JAMES H. ISMAY, Iwerne Minster House, Blandford, for Venture, bred by James Flower, Chilmark, Salisbury.
 2395 IV. (£2).—H. G. STEPHENS, Cholderton, Salisbury.
 2394 R. N. & H. O.—CARY COLES, Manor House, Winterbourne Stoke, Salisbury, for Stonehenge No. 513.

Class 262.—Hampshire Down Ram Lambs.⁴ [19 entries.]

- 2410 I. (£10).—J. A. MORRISON, Berwick House, Hindon, Salisbury.
 2408 II. (£5).—JAMES H. ISMAY, Iwerne Minster House, Blandford.
 2409 III. (£3), & 2405 IV. (£2).—ALFRED E. BLACKWELL, The Home Farm, Chipperfield, King's Langley, Herts.
 2406 R. N. & H. O.—JAMES GOLDSMITH, Blenworth, Hordean, Hants.
 H. O.—2404, 2416, 2417. C.—2411, 2413, 2415, 2418, 2419.

¹ Champion Gold Medal given by the Southdown Sheep Society for the best Ram in Classes 261 and 265.

² Prizes given by the Southdown Sheep Society.

³ Silver Medal given by the Southdown Sheep Society for the best Pen of Ewes or Ewe Lambs in Classes 258 and 260.

⁴ Prizes given by the Hampshire Down Sheep Breeders' Association.

Award of Live Stock Prizes at Shrewsbury, 1914. ciii

Unless otherwise stated, each prize animal named below was "bred by exhibitor."

- Class 263.—Three Hampshire Down Ram Lambs.** [13 entries.]
 2407 I. (£10, & Champion.)—J. A. MORRISON, Berwick House, Hindon, Salisbury.
 2408 II. (£5.)—DONALD NICOLL, Burford, Wilt. Mary Worth, Winchester.
 2409 III. (£3.)—H. C. STEPHENS, Cholderton, Salisbury.
 2410 IV. (£2.)—JAMES H. ISMAY, Iwerne Minster House, Blandford.
 2411 E. W. & H. C.—B. J. WATERS, Flimstone, Bishopstone, Salisbury.
 H. C.—2431, 2434. O.—2432.

- Class 264.—Three Hampshire Down Shearling Ewes.** [2 entries.]
 2412 I. (£10.) & 2414 II. (£5.)—E. A. EDNEY, Five Heads Farm, Hordeau, Hants.

- Class 265.—Three Hampshire Down Ewe Lambs.** [14 entries.]
 2413 I. (£10, & R. W. for Champion.)—JAMES H. ISMAY, Iwerne Minster House, Blandford.
 2416 II. (£5.)—H. C. STEPHENS, Cholderton, Salisbury.
 2418 III. (£3.)—ALFRED E. BLOKOWELL, The Home Farm, Chipperfield, King's Langley, Herts.
 2419 IV. (£2.)—JAMES GOLDSMITH, Blendworth, Hordeau, Hants.
 2423 E. W. & H. C.—J. A. MORRISON, Berwick House, Hindon, Salisbury.
 H. C.—2444.

Suffolks.

- Class 266.—Suffolk Two-Shear Rams.*** [3 entries.]
 2450 I. (£10.) & 2451 II. (£5.)—HERBERT E. SMITH, The Grange, Walton, Felixstowe.
 2449 III. (£3.)—R. L. BARCLAY, Higham, Bury St. Edmund's, for Higham Walton 1st.
 19450, bred by H. E. Smith, The Grange, Walton, Felixstowe.

- Class 267.—Suffolk Shearling Rams.** [5 entries.]
 2455 I. (£10.) & 2456 II. (£5.)—HERBERT E. SMITH, The Grange, Walton, Felixstowe.
 2463 III. (£3.)—R. L. BARCLAY, Higham, Bury St. Edmund's, for Higham Walton 2nd.
 2465 E. W. & H. C.—R. L. BARCLAY, for Higham Fingringhops.

- Class 268.—Suffolk Ram Lambs.*** [6 entries.]
 2461 I. (£10.) & 2462 III. (£3.)—HERBERT E. SMITH, The Grange, Walton, Felixstowe.
 2462 II. (£5.)—G. A. GOODCHILD, Great Yeldham, Essex.
 2467 E. W. & H. C.—CHIVERS & SONS, LTD., Histon, Cambs.

- Class 269.—Three Suffolk Ram Lambs.** [5 entries.]
 2467 I. (£10.)—HERBERT E. SMITH, The Grange, Walton, Felixstowe.
 2466 II. (£5.)—G. A. GOODCHILD, Great Yeldham, Essex.
 2463 III. (£3.)—CHIVERS & SONS, LTD., Histon, Cambs.
 2468 E. W. & H. C.—W. F. PAUL, Kilton Lodge, Ipswich.

- Class 270.—Three Suffolk Shearling Ewes.** [5 entries.]
 2469 I. (£10.) & 2469 II. (£5.)—R. L. BARCLAY, Higham, Bury St. Edmund's.
 2470 III. (£3.)—CHIVERS & SONS, LTD., Histon, Cambs.
 2472 E. W. & H. C.—W. F. PAUL, Kilton Lodge, Ipswich.

- Class 271.—Three Suffolk Ewe Lambs.** [5 entries.]
 2477 I. (£10.)—HERBERT E. SMITH, The Grange, Walton, Felixstowe.
 2478 II. (£5.)—CHIVERS & SONS, LTD., Histon, Cambs.
 2475 III. (£3.)—G. A. GOODCHILD, Great Yeldham, Essex.
 2476 E. W. & H. C.—W. F. PAUL, Kilton Lodge, Ipswich.

Dorset Downs.*

- Class 272.—Dorset Down Shearling Rams.** [3 entries.]
 2479 I. (£10.)—EDEN & WATSON, Milborne Wick, Sherborne, Dorset, for ram bred by G. Wood Homer, Bardolf Manor, Dorchester.
 2480 II. (£5.)—RANDOLPH TONY, Charisworth Manor, Whitechurch, Blandford, for Dorset Choice.
 H. C.—2478.

* Champion Prize of £10 given by the Hampshire Down Sheep Breeders' Association for the best Ram Lamb, Pen of Ram Lambs or Ewe Lambs in Classes 262, 263 and 265.
 * Prizes given by the Suffolk Sheep Society.
 * £15 towards these Prizes were given by the Dorset Down Sheep Breeders' Association.

civ. *Award of Live Stock Prizes at Shrewsbury, 1914.*

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."] 17

Class 273.—Three Dorset Down Ram Lambs. [3 entries.]

- 2483 I. (£10).—RANDOLPH TORY, Charisworth Manor, Whitechurch, Blandford.
2481 II. (£5).—EDEN & WATSON, Milborne Wick, Sherborne, Dorset.
H. C.—2482.

Class 274.—Three Dorset Down Shearling Ewes. [3 entries.]

- 2486 I. (£10).—RANDOLPH TORY, Charisworth Manor, Whitechurch, Blandford.
2484 II. (£5).—EDEN & WATSON, Milborne Wick, Sherborne, Dorset.

Dorset Horn.¹

Class 275.—Dorset Horn Shearling Rams, dropped after November 1, 1912. [5 entries.]

- 2489 I. (£10), 2488 II. (£5), & 2487 III. (£3).—FRANK J. MERSON & SON, Farringdon, North Petherton, Bridgwater.

Class 276.—Three Dorset Horn Ram Lambs, dropped after November 1, 1913. [2 entries.]

- 2490 I. (£10, & R. N. for Champion.²)—F. P. BROWN, Kingston Farm, Chillerton, Isle of Wight.
2491 II. (£5).—FRANK J. MERSON & SON, Farringdon, North Petherton, Bridgwater.

Class 277.—Three Dorset Horn Shearling Ewes, dropped after November 1, 1912. [2 entries.]

- 2492 I. (£10, & Champion.²)—F. P. BROWN, Kingston Farm, Chillerton, Isle of Wight.
2493 II. (£5).—FRANK J. MERSON & SON, Farringdon, North Petherton, Bridgwater.

Class 278.—Three Dorset Horn Ewe Lambs, dropped after November 1, 1913. [2 entries.]

- 2494 I. (£10).—F. P. BROWN, Kingston Farm, Chillerton, Isle of Wight.
2495 II. (£5).—FRANK J. MERSON & SON, Farringdon, North Petherton, Bridgwater.

Ryelands.³

Class 279.—Ryeland Rams, Two-Shear and upwards. [7 entries.]

- 2496 I. (£10).—HUGH A. CHRISTY, Llangoed Castle, Llyswen, Brecon, for Royal Bristol, born in 1911.
2497 II. (£5).—F. E. GOUGH, The Moor, Bodenham, Herefordshire, for Bodenham Viscount, born in 1912.
2502 III. (£3).—DAVID J. THOMAS, Talachddu, Brecon, for Sir Frederick, born in 1911, bred by Hugh A. Christy, Llangoed Castle, Llyswen.
2499 E. N. & H. C.—MRS. HERBERT, Clytha Park, Abergavenny, for Clytha Spark.

Class 280.—Ryeland Shearling Rams. [7 entries.]

- 2508 I. (£10).—DAVID J. THOMAS, Talachddu, Brecon.
2505 II. (£5).—HENRY R. EVANS, Court of Noke, Pembroke, for ram, bred by W. H. Davies, Claston, Dormington.
2504 III. (£3).—HUGH A. CHRISTY, Llangoed Castle, Llyswen, for Llangoed Warwork.
2506 E. N. & H. C.—MRS. HERBERT, Clytha Park, Abergavenny, for Clytha Straddler.

Class 281.—Three Ryeland Ram Lambs. [8 entries.]

- 2514 I. (£10).—F. E. GOUGH, The Moor, Bodenham, Herefordshire.
2516 II. (£5).—EDWARD JONES, Penybont Farm, Sennybridge, Brecon.
2517 III. (£3).—DAVID J. THOMAS, Talachddu, Brecon.
2515 E. N. & H. C.—MRS. HERBERT, Clytha Park, Abergavenny.

Class 282.—Three Ryeland Shearling Ewes. [4 entries.]

- 2519 I. (£10).—F. E. GOUGH, The Moor, Bodenham, Herefordshire.
2518 II. (£5).—HUGH A. CHRISTY, Llangoed Castle, Llyswen, Brecon.
2520 III. (£3), & 2521 E. N. & H. C.—MRS. HERBERT, Clytha Park, Abergavenny.

Class 283.—Three Ryeland Ewe Lambs. [5 entries.]

- 2525 I. (£10).—F. E. GOUGH, The Moor, Bodenham, Herefordshire.
2526 II. (£5).—MRS. HERBERT, Clytha Park, Abergavenny.
2522 III. (£3).—HUGH A. CHRISTY, Llangoed Castle, Llyswen, Brecon.
2523 E. N. & H. C.—V. H. DAVIES, Claston, Dormington, Herefordshire.

£18 towards these Prizes were given by the Dorset Horn Sheep Breeders' Association.

² Champion Silver Medal given by the Canadian Industrial Exhibition for the best exhibit of Dorset Horn Sheep in Classes 275-278.

³ £27 towards these Prizes were given by the Ryeland Flock Book Society.

Award of Live Stock Prizes at Shrewsbury, 1914. 61

[Unless otherwise stated, each prize animal named below was bred by exhibitor.]

Kerry Hill (Wales).¹

Class 284.—Kerry Hill (Wales) Rams, Two-Shear and upwards.
[10 entries.]

- 2527 I. (£10, & Champion.²)—WILLIAM ALDERSON, Glanmehelli, Kerry, Mont., for Kerry Importer 3940, born in 1912.
2530 II. (£6.)—T. E. KINSEY, Winsbury, Chirbury, Salop, for Gwernygog Exelsior 306, born in 1911, bred by John Morris, Gwernygog Sarn, Newtown.
2533 III. (£3.)—THE EARL OF POWIS, Walcott Park, Lydbury North, Salop, for Eaton Commander 3661, born in 1911, bred by the Duke of Westminster, Eaton Hall, Chester.
2534 R. N. & H. C.—THE EARL OF POWIS, for Gwernygog Chancellor.

Class 285.—Kerry Hill (Wales) Shearling Rams. [13 entries.]

- 2545 I. (£10, & R. N. for Champion.²), & 2546 III. (£3.)—JOHN MORRIS, Gwernygog Sarn, Newtown, Mont.
2537 II. (£5.)—WILLIAM ALDERSON, Glanmehelli, Kerry, Mont.

2548 R. N. & H. C.—THE DUKE OF WESTMINSTER, for Eaton Escort, C.—2546.

Class 286.—Kerry Hill (Wales) Shearling Rams (Novice). [9 entries.]

- 2557 I. (£10.)—JOHN PUGH, Stowe Farm, Brampton Brian, Herefordshire, for Stowe Ironside.
2556 II. (£5.) & 2555 R. N. & H. C.—GEORGE PREECE, Hope Bowdler, Church Stretton.
2558 III. (£3.)—THE EARL OF POWIS, Walcott Park, Lydbury North, Salop, for Walcott Forester.

Class 287.—Three Kerry Hill (Wales) Ram Lambs. [9 entries.]

- 2560 I. (£10.)—LORD HARLECH, Brogyntyn, Oswestry.
2561 II. (£5.)—JAMES H. IRIN, Park Hall Farm, Oswestry.
2567 III. (£3.)—COLONEL THOMAS WOOD, Gwernyfodl, Three Cocks, Brecon.
2568 R. N. & H. C.—THE DUKE OF WESTMINSTER, Eaton Hall, Chester.
R. C.—2565.

Class 288.—Three Kerry Hill (Wales) Shearling Ewes. [6 entries.]

- 2569 I. (£10, & Champion.²)—LORD HARLECH, Brogyntyn, Oswestry.
2570 II. (£5.)—LAWTON MOORE, Brampton Brian, Herefordshire.
2572 III. (£3.)—THE DUKE OF WESTMINSTER, Eaton Hall, Chester.
2573 R. N. & H. C.—COLONEL THOMAS WOOD, Gwernyfodl, Three Cocks, Breconshire.
R. C.—2568.

Class 289.—Three Kerry Hill (Wales) Shearling Ewes (Novice).
[5 entries.]

- 2576 I. (£10.)—THE EARL OF POWIS, Walcott Park, Lydbury North, Salop.
2574 II. (£5.)—JAMES H. IRIN, Park Hall Farm, Oswestry.
2575 III. (£3.)—THE EARL OF POWIS, Powis Castle, Welshpool.
2577 R. N. & H. C.—JOHN PUGH, Stowe Farm, Brampton Brian, Herefordshire.
R. C.—2578.

Class 290.—Three Kerry Hill (Wales) Ewe Lambs. [9 entries.]

- 2581 I. (£10, & R. N. for Champion.²)—JAMES H. IRIN, Park Hall Farm, Oswestry.
2582 II. (£5.)—LAWTON MOORE, Brampton Brian, Herefordshire.
2583 III. (£3.)—JOHN MORRIS, Gwernygog Sarn, Newtown, Mont.
2580 R. N. & H. C.—LORD HARLECH, Brogyntyn, Oswestry.
R. C.—2586.

Lincolns.⁴

Class 291.—Lincoln Two-Shear Rams. [7 entries.]

- 2591 I. (£10, & R. N. for Champion.²)—F. MILLER, La Bolen, Clifton Road, Birkenhead, for Quarrington No. 1695 1336, bred by Frederick Ward, Quarrington, Sleaford.
2590 II. (£5.)—F. MILLER, for Nocton Undeafated 1335, bred by R. & W. Wright, Nocton Heath, Lincoln.

¹ £40 towards these Prizes were given by the Kerry Hill (Wales) Plock Book Society, and £23 by the Shrewsbury Local Committee.

² Champion Prize of £5 given through the Kerry Hill (Wales) Plock Book Society for the best Ram in Classes 284-286.

³ Champion Prize of £5 given through the Kerry Hill (Wales) Plock Book Society for the best Pen of Ewes or Ewe Lambs in Classes 288-290.

⁴ £26 towards these Prizes were given by the Lincoln Long-Wool Sheep Breeders Association.

⁵ Champion Prize of £5 given by the Lincoln Long-Wool Sheep Breeders' Association for the best Ram in Classes 291 and 292.

cvi *Award of Live Stock Prizes at Shrewsbury. 1914*

Unless otherwise stated, each prize animal named below was "bred by exhib

- 2683 III. (£3.)—JOHN PEARS, Mere, Lincoln, for Mere Lancer 18317.
 2692 R. N. & H. O.—HERBERT PEARS, Potterhanworth, Lincoln, for Sedgebrook
 Premier.
 H. O.—2688. C.—2694, 2696.

Class 292.—Lincoln Shearling Rams. [20 entries.]

- 2614 I. (£10, & Champion.)—R. & W. WRIGHT, Nocton and Bracebridge Heaths,
 Lincoln.
 2603 II. (£5.)—CHARLES E. HOWARD, Nocton Rise, Lincoln.
 2569 III. (£3.)—J. H. DEAN & SONS, Heath House, Nocton, Lincoln.
 2596 IV. (£2.)—JOSEPH BROCKLEBANK, Carlton-le-Moorland, Newark.
 2607 R. N. & H. O.—HERBERT PEARS, Potterhanworth, Lincoln.
 H. O.—2602. C.—2597, 2600, 2601, 2603, 2612.

Class 293.—Five Lincoln Shearling Rams. [16 entries.]

- 2630 I. (£15.)—R. & W. WRIGHT, Nocton and Bracebridge Heaths, Lincoln.
 2627 II. (£10.)—HENRY SMITH, JUN., The Cottage, Cropwell Butler, near Nottingham.
 2618 III. (£5.)—J. H. DEAN & SONS, Heath House, Nocton, Lincoln.
 2616 IV. (£2.)—JOSEPH BROCKLEBANK, Carlton-le-Moorland, Newark.
 2625 R. N. & H. O.—CLIFFORD NICHOLSON, Horkstow Manor, Barton-on-Humber.
 H. O.—2622, 2623. C.—2617, 2620.

Class 294.—Three Lincoln Ram Lambs. [10 entries.]

- 2640 I. (£10.)—R. & W. WRIGHT, Nocton and Bracebridge Heaths, Lincoln.
 2637 II. (£5.)—CLIFFORD NICHOLSON, Horkstow Manor, Barton-on-Humber, Lincs.
 2632 III. (£3.)—J. H. DEAN & SONS, Heath House, Nocton, Lincoln.
 2635 R. N. & H. O.—CHARLES E. HOWARD, Nocton Rise, Lincoln.
 H. O.—2634.

Class 295.—Three Lincoln Shearling Ewes. [11 entries.]

- 2645 I. (£10.) & 2644 II. (£5.)—CHARLES E. HOWARD, Nocton Rise, Lincoln.
 2643 III. (£3.)—ROBERT DIXON, Barff House, Brandesburton, Hull.
 2648 R. N. & H. O.—HENRY SMITH, JUN., The Cottage, Cropwell Butler, Nottingham.
 H. O.—2642. C.—2646, 2648, 2650.

Class 296.—Three Lincoln Ewe Lambs. [8 entries.]

- 2659 I. (£10.)—R. & W. WRIGHT, Nocton and Bracebridge Heaths, Lincoln.
 2654 II. (£5.)—ROBERT DIXON, Barff House, Brandesburton, Hull.
 2655 III. (£3.)—CHARLES E. HOWARD, Nocton Rise, Lincoln.
 2652 R. N. & H. O.—J. H. DEAN & SONS, Heath House, Nocton, Lincoln.
 H. O.—2653. C.—2656, 2657, 2658.

Class 297.—Three Lincoln Yearling Ewes, in wool. [3 entries.]

- 2661 I. (£10.)—WILLIAM R. SWALLOW, Wootton Laver, Uckby, Lincs.
 2660 II. (£5.)—J. H. DEAN & SONS, Heath House, Nocton, Lincoln.
 2662 III. (£3.)—W. H. WATSON, Temple Bruer, Lincoln.

Leicesters.¹

Class 298.—Leicester Shearling Rams. [9 entries.]

- 2671 I. (£10.)—J. E. & C. H. SIMPSON, Pilmoor House, Hunmanby, Yorks.
 2666 II. (£5.)—E. F. JORDAN, Eastburn, Driffield.
 2664 III. (£3.) & 2665 R. N. & H. O.—GEORGE HARRISON, Gainford Hall, Darlington.
 H. O.—2668.

Class 299.—Three Leicester Ram Lambs. [3 entries.]

- 2673 I. (£10.) & 2672 III. (£3.)—GEORGE HARRISON, Gainford Hall, Darlington.
 2674 II. (£5.)—J. E. & C. H. SIMPSON, Pilmoor House, Hunmanby, Yorks.

Class 300.—Three Leicester Shearling Ewes. [3 entries.]

- 2676 I. (£10.) & 2676 II. (£5.)—E. F. JORDAN, Eastburn, Driffield.
 2677 III. (£3.)—J. E. & C. H. SIMPSON, Pilmoor House, Hunmanby, Yorks.

Class 301.—Three Leicester Ewe Lambs. [2 entries.]

- 2678 I. (£10.)—GEORGE HARRISON, Gainford Hall, Darlington.
 2678 II. (£5.)—J. E. & C. H. SIMPSON, Pilmoor House, Hunmanby, Yorks.

¹ Champion Prize of £5 given by the Lincoln Long-Wool Sheep Breeders' Association for the best Ram in Classes 291 and 292.

² £18 towards these Prizes were given by the Leicester Sheep Breeders' Association.

Award of Live Stock Prizes at Shrewsbury, 1914. cvii

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."]

Border Leicesters.¹

Class 302.—Border Leicester Rams, Two-Shear and upwards. [4 entries.]

- 2693 I. (♂10, & Champion.)—JOSEPH G. SCOTT, Kinnurney, Newtyle, Forfarshire, for *Strathmore Bailie* 3430, born in 1910, bred by Robert Taylor, Pitblin, Carnoustie.
 2694 II. (♂5, & E. N. for Champion.)—THOMAS MCINTOSH, Ardarge, Janna, Forandenny, for *Golden Baron* 5049, born in 1910, bred by T. & N. Templeton, Tandy Knowack, Kalso.
 2695 III. (♂3.)—R. G. MURRAY & SON, Spittal, Biggar, for *His Imperial Highness* 3317, bred by John Mack, Sunny-side, Prestonkirk.

Class 303.—Border Leicester Shearling Rams. [9 entries.]

- 2696 I. (♂10.)—THE RT. HON. A. J. BALFOUR, M.P., Whittingehame, Prestonkirk, N.B.
 2697 II. (♂5.)—JOSEPH G. SCOTT, Kinnurney, Newtyle, Forfarshire.
 2698 III. (♂3.)—ANDREW M. MONTGOMERY, Nether Hall, Castle Douglas, for ram, bred by James Wallace, Chapell Hill, Kircudbright.
 2699 R. N. & H. C.—EYERHARD J. LAMB, Hayton House, Carlisle.
 H. C.—2698, 2699.

Class 304.—Border Leicester Shearling Ewes. [7 entries.]

- 2699 I. (♂10, & 2699 III. (♂3.)—JOSEPH G. SCOTT, Kinnurney, Newtyle, Forfarshire.
 2697 II. (♂5.)—R. G. MURRAY & SON, Spittal, Biggar.
 2695 R. N. & H. C.—ANDREW M. MONTGOMERY, Nether Hall, Castle Douglas.
 H. C.—2694.

Wensleydales.²

Class 305.—Wensleydale Rams, Two-Shear and upwards, entered or eligible for entry in the Wensleydale Blue-faced Fleck Book. [3 entries.]

- 2702 I. (♂10.)—THE ESTATE OF THE LATE THOMAS WILLIS, Manor House, Carperby, Yorks., for *Royal Substance* 1892, born in 1912.
 2700 II. (♂5.)—LORD HENRY BENTINCK, M.P., Underley Hall, Kirkby Lonsdale, for *Bertie's Fashion* 1836, born in 1910, bred by W. Rhodes, Lundholme, Westhouse, Kirkby Lonsdale.
 2703 III. (♂3.)—RICHARD PROCTOR, Barkerfield, Worston, Clitheroe, for *Cartmel Leader* 1775, born in 1912, bred by Rodmayne Rigg, Wells House, Cartmel.

Class 306.—Wensleydale Shearling Rams. [4 entries.]

- 2704 I. (♂10.)—LORD HENRY BENTINCK, M.P., Underley Hall, Kirkby Lonsdale.
 2706 II. (♂5.)—THE ESTATE OF THE LATE THOMAS WILLIS, Manor House, Carperby, Yorks., for ram, bred by Matthew Earton, Sutton, Thirsk.
 2705 III. (♂3.)—E. W. GIBSON, Hestholm, Leyburn, Yorks., for *Flag Commander* 1892.
 2708 R. N. & H. C.—LORD HENRY BENTINCK, M.P., for *Astley's Champion*.

Class 307.—Three Wensleydale Shearling Rams, entered or eligible for entry in the Wensleydale Blue-faced Fleck Book. [3 entries.]

- 2709 I. (♂10.)—THE ESTATE OF THE LATE THOMAS WILLIS, Carperby, Yorks.
 2706 II. (♂5.)—RICHARD PROCTOR, Barkerfield, Worston, Clitheroe.
 2707 III. (♂3.)—LORD HENRY BENTINCK, M.P., Underley Hall, Kirkby Lonsdale.

Class 308.—Three Wensleydale Shearling Ewes. [5 entries.]

- 2711 I. (♂10, & 2710 III. (♂3.)—LORD HENRY BENTINCK, M.P., Underley Hall, Kirkby Lonsdale.
 2714 II. (♂5.)—THE ESTATE OF THE LATE THOMAS WILLIS, Carperby, Yorks.
 2712 R. N. & H. C.—E. W. GIBSON, Hestholm, Leyburn, Yorks.
 H. C.—2713.

Lonks.³

Class 309.—Lonk Rams, Shearling and upwards. [3 entries.]

- 2715 I. (♂10.)—EDWARD SMITH, Summerhouse Farm, Cowling, near Keighley, for *Summerhouse Goolkeeper* 302, born in 1912.
 2717 II. (♂5.)—LADY THURGOOD, Ormerod House, Burnley, for *Sheddin Sirdar* 260, born in 1913, bred by Mr. Ormerod, Hurstwood.

¹ £18 towards these Prizes were given by the Society of Border Leicester Sheep Breeders.

² Perpetual Challenge Cup given by the Society of Border Leicester Sheep Breeders for the best Ram or Ewe in Classes 302-304.

³ £18 towards these Prizes were given by the Wensleydale Blue-faced Sheep Breeders' Association and Fleck Book Society.

⁴ £5 towards these Prizes were given by the Lonk Sheep Breeders' Association.

viii Award of Live Stock Prizes at Shrewsbury, 1914.

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

Class 310.—Three Leuk Shearling Ewes. [3 entries.]

- 2720 I. (£10).—LADY THURSBY, Ormerod House, Burnley, for ewes, bred by Barcroft, Ramsbottom.
2718 II. (£5).—EDWARD SMITH, Summerhouse Farm, Cowling, near Keighley.

Derbyshire Gritstones.

Class 311.—Derbyshire Gritstone Rams, Shearling and upwards. [3 entries.]

- 2721 I. (£10).—THE EARL OF DERBY, Clough House, Wildboarclough, Macclesfield, for Nabs Lion, born in April, 1912, bred by D. C. Wheelton, Lower Nabs, Wincle, Macclesfield.

Class 312.—Three Derbyshire Gritstone Shearling Ewes. [3 entries.]

- 2724 I. (£10).—THE EARL OF DERBY, Clough House, Wildboarclough, Macclesfield.

Kent or Romney Marsh.

Class 313.—Kent or Romney Marsh Two-Shear Rams. [11 entries.]

- 2731 I. (£10, & R. N. for Champion?)—L. H. & G. W. FINN, Westwood Court, Faversham.
2734 II. (£5).—A. J. HICKMAN, Egerton, Kent, for Elham No. 25 of 1912.
2737 III. (£3), & 2736 R. N. & H. C.—J. EGERTON QUESTED, The Firs, Cheriton, Kent.
H. C.—2736. O.—2735.

Class 314.—Kent or Romney Marsh Shearling Rams. [30 entries.]

- 2759 I. (£10, & Champion?), & 2761 R. N. & H. C.—S. W. MILLEN, Syndale Valley Faversham.
2764 II. (£5), & 2763 IV. (£2).—J. EGERTON QUESTED, The Firs, Cheriton, Kent.
2740 III. (£3).—J. RAYNER BETTS, Greenhill, Otham, Maidstone, for ram, bred by C. F. Gunther, Tongewood, Hawkehurst.
H. C.—2760, 2766. O.—2747, 2762.

Class 315.—Five Kent or Romney Marsh Shearling Rams. [10 entries.]

- 2774 I. (£15).—S. W. MILLEN, Syndale Valley, Faversham.
2778 II. (£10).—J. EGERTON QUESTED, The Firs, Cheriton, Kent.
2771 III. (£5).—GEORGE FARMER, Leeds Abbey, Maidstone.
2772 IV. (£2).—L. H. & G. W. FINN, Westwood Court, Faversham.
2775 R. N. & H. C.—FREDERICK NEAME, Macknade, Faversham.
H. C.—2777.

Class 316.—Three Kent or Romney Marsh Ram Lambs. [11 entries.]

- 2781 I. (£10).—L. H. & G. W. FINN, Westwood Court, Faversham.
2787 II. (£5).—J. EGERTON QUESTED, The Firs, Cheriton, Kent.
2788 III. (£3).—FREDERICK NEAME, Macknade, Faversham.
2780 R. N. & H. C.—G. FOSTER CLARK, Boughton Mount, Maidstone.
H. C.—2788. O.—2784.

Class 317.—Three Kent or Romney Marsh Shearling Ewes. [11 entries.]

- 2797 I. (£10).—J. EGERTON QUESTED, The Firs, Cheriton, Kent.
2796 II. (£5).—FREDERICK NEAME, Macknade, Faversham.
2793 III. (£3).—GEORGE FARMER, Leeds Abbey, Maidstone.
2792 R. N. & H. C.—SIR HENRY E. DERING, Bt, Surrenden-Dering, Ashford, Kent.
H. C.—2789. O.—2791.

Class 318.—Three Kent or Romney Marsh Ewe Lambs. [11 entries.]

- 2807 I. (£10).—FREDERICK NEAME, Macknade, Faversham.
2803 II. (£5).—L. H. & G. W. FINN, Westwood Court, Faversham.
2800 III. (£3).—H. B. & C. AMOS, Nipton, Ashford, Kent.
2808 R. N. & H. C.—J. EGERTON QUESTED, The Firs, Cheriton, Kent.
H. C.—2800. O.—2802.

Cotswolds.*

Class 319.—Cotswold Shearling Rams. [5 entries.]

- 2811 I. (£10), & 2812 II. (£5).—W. T. GARNE & SON, Aidsworth, Northleach.
2814 III. (£3), & 2815 R. N. & H. C.—WILLIAM HOULTON, Broudfeld Farm, Northleach.

* £48 towards these Prizes were given by the Kent or Romney Marsh Sheep Breeders' Association.

* Champion Prize of £10 10s. given by the Kent or Romney Marsh Sheep Breeders' Association for the best Ram in Classes 313 and 314.

* £16 towards these Prizes were given by the Cotswold Sheep Society.

Award of Live Stock Prizes at Shrewsbury, 1914. cix

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."] 1

Class 320.—Three Cotswold Ram Lambs. [5 entries.]

- 2836 I. (£10), 2847 II. (£5), & 2818 III. (£3).—W. T. GARNE & SON, Aldsworth, Northleach.
 2836 R. N. & H. C.—ROBERT E. PARKER, Easton Hall, near Norwich.
 H. C.—2841.

Class 321.—Three Cotswold Shearling Ewes. [3 entries.]

- 2831 I. (£10), & 2822 III. (£3).—W. T. GARNE & SON, Aldsworth, Northleach.
 2825 II. (£5).—WILLIAM HOULTON, Broadfield Farm, Northleach.

Class 322.—Three Cotswold Ewe Lambs. [4 entries.]

- 2834 I. (£10), & 2825 II. (£5).—W. T. GARNE & SON, Aldsworth, Northleach.
 2827 III. (£3).—ROBERT E. PARKER, Easton Hall, near Norwich.
 2826 R. N. & H. C.—WILLIAM HOULTON, Broadfield Farm, Northleach.

Devon Long-Wools.

Class 323.—Devon Long-Wool Rams, Shearling and upwards. [2 entries.]

- 2829 I. (£10).—FREDERICK WHITE, Torweston, Williton, Somerset.
 2828 R. N. & H. C.—WILLIAM PHARCEY, Chiefdownman, Uplowman, Tiverton, for Craslowman Model.

Class 324.—Three Devon Long-Wool Shearling Ewes. [1 entry.]

- 2830 I. (£10).—FREDERICK WHITE, Torweston, Williton, Somerset.

South Devons.¹

Class 325.—South Devon Two-Shear Rams. [3 entries.]

- 2832 I. (£10).—JOHN S. HALLETT, Sherford, Brixton, Plymouth.
 2833 II. (£5).—R. B. TRANT, Treggill, Menheniot, Liskeard, for Twelvewood No. 1, bred by R. W. Body, Twelvewood, Liskeard, Cornwall.
 2831 R. N. & H. C.—P. G. BROWN, Tremadart, Duloe, Cornwall.

Class 326.—South Devon Shearling Rams. [3 entries.]

- 2835 I. (£10).—JOHN S. HALLETT, Sherford, Brixton, Plymouth.
 2834 II. (£5).—P. G. BROWN, Tremadart, Duloe, Cornwall.

Class 327.—Three South Devon Ram Lambs. [3 entries.]

- 2838 I. (£10).—JOHN S. HALLETT, Sherford, Brixton, Plymouth.
 2837 II. (£5).—P. G. BROWN, Tremadart, Duloe, Cornwall.

Class 328.—Three South Devon Shearling Ewes. [2 entries.]

- 2840 I. (£10).—JOHN S. HALLETT, Sherford, Brixton, Plymouth.
 2841 II. (£5).—R. B. TRANT, Treggill, Menheniot, Liskeard.

Class 329.—Three South Devon Ewe Lambs. [2 entries.]

- 2842 I. (£10).—JOHN S. HALLETT, Sherford, Brixton, Plymouth.
 2843 II. (£5).—R. B. TRANT, Treggill, Menheniot, Liskeard.

Dartmoors.²

Class 330.—Dartmoor Rams, Two-Shear and upwards. [4 entries.]

- 2844 I. (£10).—W. A. JOHNS & SONS, Cleave, Kelly, Lifton, Devon, for Bowerland Masterpiece 18, born in 1911, bred by Joseph Ball, Bowerland, Okehampton.
 2847 II. (£5).—R. RYALL, Beera Farm, Sydenham Dametel, Tavistock, for Lake General, born in 1909, bred by J. Spry, Trevenon, Lamerton, Tavistock.
 2845 R. N. & H. C.—JOHN R. T. KINGWELL, Great Aish, South Brent, Devon, for Eclipse.

Class 331.—Dartmoor Shearling Rams. [5 entries.]

- 2850 I. (£10).—HENRY J. KINGWELL, Bow Grange, Totnes, for Brent Pattern Head, bred by J. R. T. KINGWELL, Great Aish, South Brent.
 2852 II. (£5).—E. B. YELLAND, Tor Park, Brentor, Tavistock.
 2849 R. N. & H. C.—W. A. JOHNS AND SONS, Cleave, Kelly, Lifton, Devon.

¹ £30 towards these Prizes were given by the South Devon Flock Book Association.

² £15 towards these Prizes were given by the Dartmoor Sheep Breeders' Association.

cx Award of Live Stock Prizes at Shrewsbury, 1914.

[Unless otherwise stated, each prize animal named below was "bred by exhibitor."]

Class 332.—Three Dartmoor Shearling Ewes. [5 entries.]

- 2853 I. (£10).—P. R. JEFFERY, Park Hill Stud Farm, Ipplepen, Newton Abbot.
 2855 II. (£5).—JOHN R. T. KINGWILL, Great Ash, South Brent, Devon.
 2867 R. N. & H. C.—WILLIAM ROWSE, Okehampton, Devon.

Exmoor Horn.¹

Class 333.—Exmoor Rams, Two-Shear and upwards. [4 entries.]

- 2860 I. (£10).—PERCY SMYTH, Broford, Dulverton, for Big Ban 485, born in March, 1912, bred by John Gummin, Braylows, High Bray, South Molton.
 2868 II. (£5).—H. K. LETHERBRIDGE, Wood, South Tawton, Okehampton, for ram, born in 1912, bred by D. J. TAPP, Highercombe, Dulverton.
 2869 III. (£3).—PERCY SMYTH, for Hadrid No. 11 469, born in 1911, bred by Fred S. Yendall, Nadrid, South Molton.

Class 334.—Exmoor Shearling Rams. [4 entries.]

- 2865 I. (£10).—D. J. TAPP, Highercombe, Dulverton.
 2862 II. (£5).—H. K. LETHERBRIDGE, Wood, South Tawton, Okehampton, for Wood 15.
 2864 III. (£3). & 2866 R. N. & H. C.—PERCY SMYTH, Broford, Dulverton.

Class 335.—Three Exmoor Shearling Ewes. [2 entries.]

- 2867 I. (£10).—D. J. TAPP, Highercombe, Dulverton.
 2866 II. (£5).—H. K. LETHERBRIDGE, Wood, South Tawton, Okehampton.

Cheviots.²

Class 336.—Cheviot Rams, Two-Shear and upwards. [4 entries.]

- 2870 I. (£10), & 2871 III. (£3).—JOHN ROBSON, Newton, Bellingham, Northumberland, born in 1912.
 2869 II. (£5).—JACOB ROBSON, Byrness, Otterburn, born in 1912.
 2868 R. N. & H. C.—JACOB ROBSON, for Ravenscleugh.

Class 337.—Cheviot Shearling Rams. [4 entries.]

- 2872 I. (£10), & 2873 R. N. & H. C.—JACOB ROBSON, Byrness, Otterburn.
 2874 II. (£5), & 2875 III. (£3).—JOHN ROBSON, Newton, Bellingham.

Class 338.—Cheviot Shearling Ewes. [4 entries.]

- 2876 I. (£10), & 2879 II. (£5).—JOHN ROBSON, Newton, Bellingham.
 2877 III. (£3), & 2878 R. N. & H. C.—JACOB ROBSON, Byrness, Otterburn.

Herdwicks.³

Class 339.—Herdwick Rams, Two-Shear and upwards. [3 entries.]

- 2880 I. (£10).—THE EARL OF LONSDALE, Whitehaven Castle, Cumberland, for ram, born in 1911, bred by John Birkett, How Hall, Enderdale.
 2882 II. (£5).—S. D. STANLEY-DODGSON, Tarnbank, Cockermouth, for Sawfell, born in 1909, bred by John Rothery, Wasdale Head Hall, Cumberland.
 2881 R. N. & H. C.—S. D. STANLEY-DODGSON, for Burnbank.

Class 340.—Herdwick Shearling Rams. [5 entries.]

- 2885 I. (£10).—THE EARL OF LONSDALE, Whitehaven Castle, Cumberland.
 2887 II. (£5).—S. D. STANLEY-DODGSON, Tarnbank, Cockermouth, for ram, bred by John Rothery, Wasdale Head Hall, Cumberland.
 2883 R. N. & H. C.—HENRY C. HOWARD, Greystoke Castle, Penrith.

Class 341.—Three Herdwick Shearling Ewes. [4 entries.]

- 2891 I. (£10).—S. D. STANLEY-DODGSON, Tarnbank, Cockermouth.
 2890 II. (£5), & 2889 R. N. & H. C.—THE EARL OF LONSDALE, Whitehaven Castle, Cumberland.

Welsh Mountain.⁴

Class 342.—Welsh Mountain Rams, Two Shear and upwards. [1 entry.]

- 2898 I. (£10).—OWEN PRICE, Nantyrharn, Cray, Breconshire, for Nantyrharn Twm, born in 1911.

¹ £13 towards these Prizes were given by the Exmoor Horn Sheep Breeders' Society.
² £13 towards these Prizes were given by the Breeders of Cheviot Sheep.
³ £15 towards these Prizes were given by Breeders of Herdwick Sheep.
⁴ £17 towards these Prizes were given by the Welsh Mountain Sheep Flock Book Society, and £10 by the Shrewsbury Local Committee.

Award of Live Stock Prizes at Shrewsbury, 1914. cxi

(Unless otherwise stated, each prize animal named below was "bred by exhibitor.")

- 2307 II. (45.)—ROBERT ROBERTS, Rhydygarnedd, Towyn, Merioneth, for *Boneddur 527*, born in 1911.
 2308 III. (43.)—JOSEPH LLEWELYN GRATTON, Fron Haul Farm, Dysarth Road, Rhyll, for *Ford Bychan*, born in 1912.
 2309 IV. (42.)—R. E. JONES, Hafod, Corwen, for *Haford Berwyn 2nd 578*, born in 1912.
 2310 R. E. & H. C.—H. O. ELLIS, Typhendre, Bangor.
 H. C.—2300, 2302. C.—2303, 2309.

Class 343.—Welsh Mountain Shearling Rams. [20 entries.]

- 2311 I. (410.)—THE UNIVERSITY COLLEGE OF NORTH WALES, College Farm, Aber Bangor.
 2312 II. (42.)—ROBERT ROBERTS, Rhydygarnedd, Towyn, Merioneth, for *Rhydygarnedd Gentleher*.
 2313 III. (43.)—W. G. ROBERTS, Dysarth Hall, Dysarth, Flint.
 2314 IV. (42.)—COLONEL HENRY PLATT, O.B., Gordinog, Llanfairfechan.
 2315 V. (43.)—JOSEPH LLEWELYN GRATTON, Fron Haul Farm, Dysarth Road, Rhyll.
 2316 R. E. & H. C.—JOHN C. WYNNE-FINCH, Voelau, Bettws-y-Coed, for *Voelau Hero*.
 H. C.—2308, 2315, 2318. C.—2307, 2320.

Class 344.—Welsh Mountain Ram Lambs. [14 entries.]

- 2317 I. (410.) & 2318 II. (45.)—JOSEPH LLEWELYN GRATTON, Fron Haul Farm, Dysarth Road, Rhyll.
 2319 III. (43.) & 2320 R. E. & H. C.—THE UNIVERSITY COLLEGE OF NORTH WALES, College Farm, Aber Bangor.
 2321 IV. (42.)—W. G. ROBERTS, Dysarth Hall, Dysarth, Flint.
 H. C.—2325, 2323, 2328. C.—2324, 2322, 2330.

Class 345.—Three Welsh Mountain Shearling Ewes. [12 entries.]

- 2322 I. (410.)—JOSEPH LLEWELYN GRATTON, Fron Haul Farm, Dysarth Road, Rhyll.
 2323 II. (42.)—THE UNIVERSITY COLLEGE OF NORTH WALES, College Farm, Aber Bangor.
 2324 III. (43.)—JOHN GRIFFITHS GRATTON, Ford Farm, Abergale.
 2325 IV. (42.)—W. G. ROBERTS, Dysarth Hall, Dysarth, Flint.
 2326 R. E. & H. C.—JOHN C. WYNNE-FINCH, Voelau, Bettws-y-Coed.
 H. C.—2326, 2347. C.—2328.

Class 346.—Three Welsh Mountain Ewe Lambs. [10 entries.]

- 2327 I. (410.)—COLONEL HENRY PLATT, O.B., Gordinog, Llanfairfechan.
 2328 II. (43.)—JOSEPH LLEWELYN GRATTON, Fron Haul Farm, Dysarth Road, Rhyll.
 2329 III. (43.)—W. G. ROBERTS, Dysarth Hall, Dysarth, Flint.
 2330 IV. (42.)—J. MARSHALL DUGDALE, Llwyn Stud Farm, Llanfyllin, Mont.
 2331 R. E. & H. C.—JOHN GRIFFITHS GRATTON, Ford Farm, Abergale.
 H. C.—2325, 2366. C.—2326.

Black-faced Mountain.

Class 347.—Black-faced Mountain Rams, Shearling and upwards.

[11 entries.]

- 2332 I. (410.) & 2333 R. E. & H. C.—JOHN ROHSON, Newton, Bellingham, for rams, born in 1913.
 2334 II. (45.)—WALTER N. COCHRANE, St. John's Chapel, Weardale, co. Durham, for ram, born in 1912, bred by Mr. Paul Handaxwood, N.B.
 2335 III. (43.)—PHILIP SOWERBY, Bank Hall, Newbiggin, Carlisle, for *Tignablaire 2nd*, born in 1913.
 H. C.—2360, 2394, 2365.

Class 348.—Black-faced Mountain Shearling Ewes. [8 entries.]

- 2374 I. (410.)—JOHN ROHSON, Newton, Bellingham, Northumberland.
 2377 II. (45.)—PHILIP SOWERBY, Bank Hall, Newbiggin, Carlisle.
 2378 R. E. & H. C.—WALTER N. COCHRANE, St. John's Chapel, Weardale, co. Durham.
 H. C.—2371, 2375. C.—2372, 2376.

xxii Award of Live Stock Prizes at Shrewsbury, 1914.

(Unless otherwise stated, each prize animal named below was *bred by exhibitor.)

PIGS.

Large Whites.

Class 349.—*Large White Boars, farrowed in 1910, 1911, or 1912.*
[12 entries.]

- 2892 I. (£10, & Champion.)—SIR GILBERT GREENALL, BT. C.V.O., Walton Hall, Warrington, for Worsley Turk 51st 16931, born Jan. 2, 1912, bred by the Earl of Eilemere, Worsley Hall, near Manchester; s. Worsley Turk 30th 15335, d. Worsley Miss 18th 30336 by Worsley Turk 4th 11211.
- 2891 II. (£5.)—SIR GILBERT GREENALL, BT. C.V.O., for Jay of Worsley 14th 16147, born Jan. 6, 1912, bred by D. R. Daybell, Bottesford, Nottingham; s. Mollington Jay of Bottesford 10965, d. Bottesford Empress 6th 20496 by Ruddington Roger of Bottesford 10983.
- 2890 III. (£3.)—ALFRED W. WHITE, Hillegom, Spalding, for Spalding Emperor 17496, born March 18, 1911; s. Emperor of Spalding 2nd 15567, d. Miss Shenstone of Spalding 28114 by Emperor of Shenstone 15525.
- 2879 E. W. & E. C.—JOSEPH DARLINGTON, Stanwardine Farm, Burlington, Salop, for West Derby Bashful Lad 2nd.
H. C.—2978, 2980, 2982. C.—2984, 2987.

Class 350.—*Large White Boars, farrowed in 1913, before July 1.*
[11 entries.]

- 3000 I. (£10, & R. N. for Champion.)—ALFRED W. WHITE, Hillegom, Spalding, for Spalding Vulcan 17703, born Jan. 7; s. Wonder 2nd 15466, d. Nottingham Choice Lass 4th 25810 by Fulwood Longfellow 9121.
- 2991 II. (£5.)—SIR GILBERT GREENALL, BT. C.V.O., Walton Hall, Warrington, for Ringleader of Bottesford 17831, born Jan. 3, bred by P. J. Denn, Greenbridge Lane, Tarbock, near Freecot; s. Worsley Turk 30th 15638, d. Worsley Duchess 13th 23800 by Worsley Roger 3827.
- 2990 III. (£3.)—EDMUND WHEBBY, Bourne, Lincs, for Bourne Banger 2nd 17111, born Jan. 2; s. Bourne Banner 5th 15047, d. Bourne Bramble 12th 34874 by Bourne Counsellor 18327.
- 2992 E. W. & E. C.—SIR GILBERT GREENALL, BT. C.V.O., for Worsley Banner 2nd.
H. C.—2993, 2995, 2998. C.—2994, 2997.

Class 351.—*Large White Boars, farrowed in 1913, on or after July 1.*
[11 entries.]

- 3006 I. (£10.)—ROWLAND P. HAYNES, Red House Farm, Caldmere, Walsall, for Caldmere Turk, born July 28; s. Turk of Caldmere 16381, d. Caldmere Jewel 34942 by Ruddington Knight 7003.
- 3009 II. (£5.)—R. E. W. STEPHENSON, Tue Brook, Liverpool, for Roger 4th of West Derby, born July 26, bred by J. Carson, Crystalbrook, Theydon Bois; s. Roger of Aughton 12727, d. Wyboston Charm 33778 by Hugo 12967.
- 3001 III. (£3.)—JOHN FILLINGHAM, George Hotel, Grantham, for Grantham Goalkeeper, born July 2; s. Ramsey Unicorns 15225, d. Grantham Margaret 32012 by St. Leger of Grantham 14005.
- 3005 E. W. & E. C.—SIR GILBERT GREENALL, BT. C.V.O., for Worsley Jay 31st.
H. C.—3022, 3003, 3004. C.—3011.

Class 352.—*Large White Boars, farrowed in 1914.* [25 entries.]

- 3012 I. (£10.)—DANIEL R. DAYBELL, Bottesford, Nottingham, for boar, born Jan. 9; s. Mollington Jay of Bottesford 10965, d. Buttercup of Bottesford 24908 by Radium.
- 3019 II. (£5.)—SIR GILBERT GREENALL, BT. C.V.O., Walton Hall, Warrington, for boar, born Jan. 4; s. Worsley Turk 28th 15531, d. Worsley Empress 60th 33648 by Worsley Monarch 25th 11193.
- 3034 III. (£3.)—EDMUND WHEBBY, Bourne, Lincs, for Bourne Banger 10th, born Jan. 3; s. Bourne Banger 2nd 17111, d. Bourne Beatrice 3rd 24944 by Eclipse of East Winch 9823.
- 3025 IV. (£2.)—JOHN NEAVEVERSON, Eye, Peterborough, for boar, born Jan. 3; s. Eye Longfellow 3rd 14889, d. Eye Lass 13th 31952 by Hugo 12967.
- 3015 E. W. & E. C.—DANIEL R. DAYBELL, Bottesford, Nottingham.
H. C.—3013, 3023, 3026, 3031. C.—3028, 3035.

¹ Champion Gold Medal given by the National Pig Breeders' Association for the best Boar in Classes 349-352.

² Prizes given by the National Pig Breeders' Association.

Award of Live Stock Prizes at Shrewsbury, 1914. cxiii

(Unless otherwise stated, each prize animal named below was "bred by exhibitor.")

Class 353.—Large White Breeding Sows, farrowed in 1910, 1911, or 1912.

[13 entries.]

- 3043 I. (£10, & R. N. for Champion.)—SIR GILBERT GREENALL, BT., C.V.O., Walton Hall, Warrington, for Worsley Lady 7th 36550, born Jan. 10, 1912, farrowed Feb. 25, bred by the Earl of Ellesmere, Worsley Hall, near Manchester; s. Worsley Turk 16017 14523, d. Ladylike of Worsley 3rd 28816 by Bouncing Boy of Nottingham 10637.
 3044 II. (£5.)—JOHN & ROBERT PURVIS, The Rookery, Wyboston, St. Neots, for Worsley Amy 53763, born Jan. 2, 1911, farrowed March 29; s. Swynford of Wyboston 14067, d. Wyboston Ada 33822 by Peterboro' City 10867.
 3045 III. (£3.)—J. I. MAJOR, Whyte House, Ramsey, Hunts., for Ramsey Primrose 16th 35244, born April 19, 1912, farrowed Jan. 8; s. That's Im 15413, d. Ramsey Primrose 2nd 29566 by Wonder 12917.
 3046 R. N. & H. C.—R. E. W. STEPHENSON, Tue Brook, Liverpool, for Tallington Sunshine.
 H. C.—3037, 3038, 3039, 3041. C.—3040.

Class 354.—Large White Sows, farrowed in 1913, before July 1.

[20 entries.]

- 3049 I. (£10, & Champion.)—ALFRED W. WHITE, Hillegom, Spalding, for Spalding Miss Shenstone 29236, born Jan. 1; s. Wonder 2nd 15450, d. Miss Shenstone of Spalding 29114 by Emperor of Shenstone 15865.
 3050 II. (£5.)—SIR GILBERT GREENALL, BT., C.V.O., Walton Hall, Warrington, for Buttercup of Worsley 5th 32834, born Jan. 6, bred by D. R. Daybell, Bottesford, Nottingham; s. Mollington Jay of Bottesford 10905, d. Buttercup of Bottesford 24806 by Radium 11017.
 3051 III. (£3.)—SIR GILBERT GREENALL, BT., C.V.O., for Buttercup of Worsley 7th 57806, born Jan. 6, bred by D. R. Daybell, Bottesford, Nottingham; s. Mollington Jay of Bottesford 10905, d. Buttercup of Bottesford, 24806 by Radium 11017.
 3052 IV. (£2.)—R. E. W. STEPHENSON, Tue Brook, Liverpool, for Princess 14th of West Derby, born March 4, bred by George Pimlott, Queen's Buildings, Altrincham; s. Stamford Roger 8rd 16339, d. Worsley Princess 81st 30355 by Worsley Turk 4th 11217.
 3053 R. N. & H. C.—EDMUND WHERRY, Bourne, Lines., for Bouquet of Bourne.
 H. C.—3050, 3052, 3055, 3067, 3068. C.—3051, 3061, 3062, 3063.

Class 355.—Large White Sows, farrowed in 1913, on or after July 1.

[28 entries.]

- 3072 I. (£10.)—JOHN FILLINGHAM, George Hotel, Grantham, for Grantham Lena, born July 3; s. Ramsey Unicorn 15225, d. Grantham Maria 32014 by St. Leger of Grantham.
 3073 II. (£5.)—SIR GILBERT GREENALL, BT., C.V.O., Walton Hall, Warrington, for Buttercup of Worsley 9th, born July 9, bred by D. R. Daybell, Bottesford, Nottingham; s. Mollington Jay of Bottesford 10905, d. Buttercup of Bottesford 24806 by Radium 11017.
 3077 III. (£3.)—EDMUND WHERRY, Bourne, Lines., for Empress of Bourne 5th, born July 10, bred by James Lane, Podge Hole, West Pinchbeck; s. Worsley Emperor 56th 16545, d. Worsley Empress 62nd 33662 by Duke of West Derby 12485.
 3078 R. N. & H. C.—JOHN FILLINGHAM, for Grantham Lottie.
 H. C.—3070, 3071, 3075, 3076, 3083, 3084. C.—3077, 3078, 3084, 3089, 3090.

Class 356.—Three Large White Sows, farrowed in 1914. [12 entries.]

- 3090 I. (£10.)—DANIEL R. DAYRELL, Bottesford, Nottingham, for sows, born Jan. 2; s. Mollington Jay of Bottesford 10905, d. Buttercup of Bottesford 24806 by Radium 11017.
 3108 II. (£5.)—EDMUND WHERRY, Bourne, Lines., for sows, born Jan. 2; s. Bourne President 17147, d. Bourne Queen Bee 31720 by Bourne Banner 15365.
 3100 III. (£3.)—SIR GILBERT GREENALL, BT., C.V.O., Walton Hall, Warrington, for sows, born Jan. 1; s. Walton Don 4th 17733, d. Worsley Queen 19th 35012 by Worsley Turk 28th 15531.
 3109 IV. (£2.)—ALFRED W. WHITE, Hillegom, Spalding, for sows, born Jan. 5; s. Grandee of Spalding 14921, d. Lilac of Spalding 22158 by Spalding Wonder 12706.
 3104 R. N. & H. C.—JOHN NAEVASON, Eye, Peterborough.
 H. C.—3098, 3106, 3107. C.—3103, 3105.

Middle Whites.

Class 357.—Middle White Boars, farrowed in 1910, 1911, or 1912.

[5 entries.]

- 3111 I. (£10, & R. N. for Champion.)—WILLIAM B. HILL, Underhill, Canneck Road, Wolverhampton, for Prestwood David 15663, born Jan. 7, 1911; s. John Junior 14439, d. Prestwood Rose 3rd 34191 by Wharfedale Bard 12111.
 * Champion Gold Medal given by the National Pig Breeders' Association for the best Sow in Classes 353-355.
 * Champion Gold Medal given by the National Pig Breeders' Association for the best Boar in Classes 357-360.

112. *Award of Live Stock Prizes at Shrewsbury, 1914.*

Prizes were given to each prize animal named below was "bred by exhibitor."

- 112 II. (24).—LEOPOLD C. PAGET, Middlethorpe Hall, York, for Sentinel of Wharfedale 18123, born Jan. 12, 1912, bred by Charles Spencer, The Hartthay Farms, Brampton, Hunts.; s. Holywell Spider 15641, d. Dinah of Holywell 54038 by Holywell 34120.
 113 III. (23).—JOHN CHIVERS, Wychfield, Cambridge, for Jonathan of Histon 18601, born Aug. 22, 1912, bred by Charles Spencer, The Hartthay Farms, Brampton, Hunts.; s. Holywell Jonathan 14455, d. Holywell Perfection 30944 by Seton of Holywell 14405.
 114 R. N. & H. C.—THE EXORS. OF A. C. TWENTYMAN, Castlecroft, Wolverhampton, for Castlecroft Scourge.

Class 358.—*Middle White Boars, farrowed in 1913.* [6 entries.]

- 117 I. (210, & Champion).—LEOPOLD C. PAGET, Middlethorpe Hall, York, for Reveller of Wharfedale 18115, born Jan. 8, bred by the Trustees of the Earl of Lathom, Lathom House, Ormskirk; s. Blythe Reveller 15675, d. Miss Pattie 30850 by Turbock Clumber 12101.
 118 II. (25).—W. H. CARTER, Moss Hall, Carrington, Manchester, for Carrington Reveller, born July 20; s. Croxteth Reveller 7th 18741, d. Carrington Rose 18th 33922 by Enterprise of West Derby 14498.
 119 III. (23).—CHARLES SPENCER, The Hartthay Farms, Brampton, Hunts., for Holywell Hartthay 18077, born Jan. 1; s. Holywell Jonathan 14433, d. Holywell Wyboston 34120 by Holywell Middleton 2nd 11273.
 116 R. N. & H. C.—W. KELLOCK, Highfields, Audlem, for Corporation of Audlem.

Class 359.—*Middle White Boars, farrowed in 1914.* [11 entries.]

- 120 I. (210).—H. E. BERTON, Hammonds, Checkendon, Reading, for boar, born Jan. 27; s. Walton of Pendley 15711, d. Salonica by Hammonds Hardway 18325.
 121 II. (25).—LEOPOLD C. PAGET, Middlethorpe Hall, York, for boar, born Jan. 10; s. Walton Clumber 7th 14497, d. Croxteth Pattie 7th 33974 by Bakker of Castlecroft.
 122 III. (23).—W. B. HILL, Underhill, Cannock Road, Wolverhampton, for boar, born Jan. 9, bred by the Earl of Seton, Croxteth Park, Liverpool; s. Walton Clumber 7th 14497, d. Croxteth Rose 15th 34030 by Dunford Duke 7th 15617.
 122A R. N. & H. C.—THOMAS WILLOCK, Duffield Mount, Bowdon, Cheshire, H. C.—3127.

Class 360.—*Middle White Breeding Sows, farrowed in 1910, 1911, or 1912.*

[10 entries.]

- 124 I. (210, & Champion).—WILLIAM B. HILL, Underhill, Cannock Road, Wolverhampton, for Prestwood Annie 30970, born Jan. 8, 1912, farrowed Jan. 8; s. Prestwood Bugler 14451, d. Holywell Gloucester 30819 by Castlecroft Rufus 18346.
 125 II. (25).—CHARLES SPENCER, The Hartthay Farms, Brampton, Hunts., for Holywell Hartthay Perfection 30974, born March 4, 1912, farrowed Jan. 2; s. Seton of Holywell 14405, d. Holywell Rosella 2nd 34094 by Holywell Rosario 6867.
 123 III. (23).—WILLIAM B. HILL, for Croxteth Rose 16th 34030, born Aug. 19, 1911, farrowed Jan. 9, bred by the Earl of Seton, Croxteth Park, Liverpool; s. Dunford Duke 7th 15617, d. Rose of Tarbock 7th 30916 by Tarbock Prince 12103.
 120 R. N. & H. C.—W. H. CARTER, Moss Hall, Carrington, Manchester, for Croxteth Rose 11st.
 H. C.—3131, 3132, 3138A. O.—3138.

Class 361.—*Middle White Sows, farrowed in 1913.* [11 entries.]

- 126 I. (210, & R. N. for Champion).—THE EXORS. OF A. C. TWENTYMAN, Castlecroft, Wolverhampton, for Castlecroft Maisie 30824, born Jan. 13; s. Wharfedale Hal 18617, d. Castlecroft Baroness 2nd 30623 by Wharfedale Bard 12111.
 128 II. (25).—H. E. BERTON, Hammonds, Checkendon, Reading, for Rose of Pendley 9th 40083, born Jan. 9, bred by the Earl of Seton, Croxteth Park, Liverpool; s. Reveller of Croxteth 15673, d. Tarbock Rose 10th 30922 by Tarbock Prince 12103.
 124 III. (23). & 3142 R. N. & H. C.—WILLIAM B. HILL, Underhill, Cannock Road, Wolverhampton, for sows, born Jan. 5.
 H. C.—3147, 3147A.

Class 362.—*Three Middle White Sows, farrowed in 1914.* [11 entries.]

- 126 I. (210).—LEOPOLD C. PAGET, Middlethorpe Hall, York, for sows, born Jan. 14 and 28; s. Epicure of Wharfedale 18706 and Sentinel of Wharfedale 18123, d. Wharfedale Smoke 37063, Wharfedale Peace 37064 by Wharfedale Reveller 11329.

* Prizes given by the National Pig Breeders' Association.
 * Champion Gold Medal given by the National Pig Breeders' Association for the best Boar in Classes 357-362.
 * Champion Gold Medal given by the National Pig Breeders' Association for the best Sow in Classes 360 and 361.

Record of Live Stock Prizes at Shrewsbury, 1914. cxx

Unless otherwise stated, each prize animal named below was bred by exhibitor.

- 3763.—WILLIAM B. HILL, Underhill, Cannock Road, Wolverhampton, for sows, born Jan. 9, bred by the Earl of Sefton, Croxteth Park, Liverpool; s. Walton Clun 1897, d. Croxteth Rose 15th 3430 by Dunford Duke 7th 1891.
- 3764.—LEOPOLD C. PAGET, for sows, born Jan. 10; s. Walton Clun 7th 1891, d. Croxteth Patsie 7th 1897 by Banker of Castlecroft 12865.
- 3765.—H. R. BRITTON, Hammonds, Checkendon, Reading.

Tamworths.

Class 354.—Tamworth Boars, farrowed in 1910, 1911, or 1912.

[6 entries.]

- 3762 I. (£10, & Champion.)—W. H. MITCHELL, Elm-dene, Kenilworth, for Elm-dene 15799, born July 12, 1912; s. Ledbury of Elm-dene 15799, d. Elm-dene Matron 7th 1891, d. Knowle Nestor 10428.
- 3762 II. (£5.)—CHARLES L. COXON, Webton Court, Madley, Hereford, for Bishop of Wotton 1291, born Jan. 18, 1911, bred by Sir Peter C. Walker, Bart., Osmaston Manor, Derby; s. Elford Bishop 13175, d. Arabis of Osmaston 27222 by Rufus of Osmaston 1343.
- 3762 III. (£25.)—D. W. PHILLIP, The Redlands, Whitacre, Birmingham, for M.P., born Feb. 12, 1912, bred by Robert Ibbotson, The Hawthorns, Knowle; s. Knowle Sylvia 20178, d. Knowle Empress Queen 31184 by Knowle Lord Minto 12191.
- 3762 IV. (£5.)—ROBERT IBBOTSON, The Hawthorns, Knowle, for Osmaston Buxus 14633.

Class 355.—Tamworth Boars, farrowed in 1913. [8 entries.]

- 3762 I. (£10, & R. N. for Champion.)—W. H. MITCHELL, Elm-dene, Kenilworth, for Elm-dene 15799, born Jan. 11; s. Ledbury of Elm-dene 15799, d. Elm-dene Matron 7th 1891, d. Knowle Nestor 10428.
- 3762 II. (£5.)—ROBERT IBBOTSON, The Hawthorns, Knowle, for Knowle Lottery 1291, born Jan. 8; s. Osmaston Buxus 14633, d. Knowle Empress Queen 31184 by Knowle Lord Minto 12191.
- 3762 III. (£5.)—ROBERT IBBOTSON, for Knowle Admiral 12213, born Jan. 2; s. Knowle Professor 15793, d. Madeline 34558 by Dick of Osmaston 13143.
- 3762 IV. (£5.)—E. J. L. & A. RILEY, The Twines, Putley, Ledbury, for Putley Competition, H. O.—3172, C.—3168, 3169.

Class 356.—Tamworth Boars, farrowed in 1914. [10 entries.]

- 3762 I. (£10.)—W. H. MITCHELL, Elm-dene, Kenilworth, for boar, born Jan. 13; s. Elm-dene Nancy 18663, d. Elm-dene Alice 37243 by Ledbury of Elm-dene 15799.
- 3762 II. (£5.)—D. W. PHILLIP, The Redlands, Whitacre, Birmingham, for boar, born Jan. 13; s. Whitacre Jester 18893, d. Lynn Lucy 8th 31200 by Lynn Major 12123.
- 3762 III. (£5.)—ROBERT DE HAMER, Middleton Hall, Tamworth, for Middleton Moloch, born Jan. 18; s. Morantus of Middleton, d. Middleton Mamula by Milton of Middleton 18621.
- 3762 IV. (£5.)—SIR PETER C. WALKER, BT., Osmaston Manor, Derby.

H. O.—3174, 3177. C.—3172.

Class 357.—Tamworth Breeding Sows, farrowed in 1910, 1911, or 1912.

[3 entries.]

- 3762 I. (£10, & R. N. for Champion.)—ROBERT IBBOTSON, The Hawthorns, Knowle, for Madeline 34558, born Nov. 11, 1910, farrowed Jan. 8, bred by Sir Peter C. Walker, BT., Osmaston Manor, Derby; s. Dick of Osmaston 13143, d. Aster of Osmaston 27216 by Redskin of Whitacre 12219.
- 3762 II. (£5.)—ROBERT DE HAMER, Middleton Hall, Tamworth, for Middleton Nuttaka 34620, born July 17, 1910, farrowed March 18; s. Mason of Middleton 13217, d. Middleton M'Bea 31226 by Gay Lad of Middleton 12181.
- 3762 III. (£5.)—WILLIAM J. PITT, The Albions, Bridgnorth, for Belle of Albions 30184, born Jan. 7, 1910, farrowed Jan. 22, bred by George Woodfield, 179 Anglesey Road, Burton-on-Trent; s. Elford Lion 13177, d. Knowle Sylvia 20178 by Cicero 9473.

Class 358.—Tamworth Sows, farrowed in 1913. [11 entries.]

- 3762 I. (£10, & Champion.)—ROBERT IBBOTSON, The Hawthorns, Knowle, for Knowle Madeline 5th 40238, born Jan. 2; s. Knowle Professor 15793, d. Madeline 34558 by Dick of Osmaston 13143.
- 3762 II. (£5.)—ROBERT IBBOTSON, for Sunburst 40224, born Jan. 2; s. Osmaston Buxus 14633, d. Knowle Empress Queen 31184 by Knowle Lord Minto 12191.

1 Champion Gold Medal given by the National Pig Breeders' Association for the best Boar in Classes 353-355.
2 Prizes given by the National Pig Breeders' Association.
3 Champion Gold Medal given by the National Pig Breeders' Association for the best Sow in Classes 356 and 357.

[Unless otherwise stated, each prize animal named below was "bred by exhibitor"]

3193 III. (25.)—SIR PETER C. WALKER, BT, Osmaston Manor, Derby, for *Camargo* Darrold 1893, born Jan. 13; s. Putley Chaplain 1881, d. Osmaston Amorphus 1874, Elford Bishop 1878.

3194 E. N. & H. C.—SIR PETER C. WALKER, BT, for Osmaston Lettie, H. C.—3194, 3198, 3192. C.—3194, 3198.

Class 368.—Three Tamworth Sows, farrowed in 1914. [4 entries.]

3195 I. (218.)—CHARLES L. COXON, Webton Court, Madley, Hereford, for sows, born Jan. 7; s. Bishop of Webton 1874, d. Cherry of Webton 1878 by Knowle Burleigh 1887.

3197 II. (25.)—W. H. MITCHELL, Elmdeane, Kenton, for sows, born Jan. 9 and 12; s. Elmdeane Dandy 1893, d. Elmdeane Alethea 3724 by Ledbury of Elmdeane 1879 and Elmdeane Anna 3726 by Ledbury of Elmdeane 1879.

3198 III. (23.)—MRS. E. MORANT, Brokenhurst Park, Hants, for sows, born Jan. 8; s. Knowle Antonio 1891, d. Dilton Megallie 3113 by Dilton Puritan 1188.

3199 E. N. & H. C.—ROBERT DE HAMER, Middleton Hall, Tamworth.

Berkshires

Class 369.—Berkshire Boars, farrowed in 1910, 1911, or 1912.

[10 entries.]

3206 I. (216.) & Champion.—SAMUEL SANDAY, Puddington Hall, near Chester, for Motcombe Cognac 1905, born June 12, 1911, bred by S. Benjafield, Shorte Green Farm, Motcombe, Dorset; s. Cognac 1490, d. Motcombe Gracie 2nd 16021 by Motcombe Victor 1829.

3202 II. (25.)—L. CURRIE, Minley Manor, Farnborough, Hants, for Minley Warrior 15682, born Jan. 7, 1911; s. Highmoor Viscount 13721, d. Motcombe Kitty, 14638 by Dorset Edward 14007.

3201 III. (23.)—L. CURRIE, for Minley Prince 47134, born Jan. 2, 1912; s. Compton Supreme 13689, d. Playful 2nd 14630 by Hamlet 2nd 11687.

3207 E. N. & H. C.—BARON BRUNO SCHRÖDER, The Dell, Englefield Green, Surrey, for Hammond's Chief, H. C.—3199.

Class 370.—Berkshire Boars, farrowed in 1912. [11 entries.]

3210 I. (210.)—H. R. BRETTON, Hammonds, Ockendon, Reading, for boar, born June 5, bred by R. B. Vincent, Manor Farm, Waterston, Dorchester; s. Harrison Lad 16867, d. Compton Grace 16727.

3215 II. (25.)—L. CURRIE, Minley Manor, Farnborough, Hants, for Minley Majestic 17381, born Jan. 17; s. Compton Supreme 13999, d. Patience 3rd 14634 by Jasper Augustus 13246.

3219 III. (23.)—SAMUEL SANDAY, Puddington Hall, near Chester, for Puddington Diamond 1st 17301, born Jan. 2; s. Puddington Caruso 2nd 15908, d. Palegate Dorothy 18948 by Harold H. 16238.

3212 IV. (22.)—WILFRED BUCKLEY, Moundsmere Manor, Basingstoke, for Moundsmere Warrior 17564, born June 15; s. Moundsmere Curious 16322, d. Moundsmere Kernel 16349 by Axford Viscount 15008.

3216 E. N. & H. C.—G. S. F. EDWARDS, Nunthorpe Hall, Yorks, for Manager Augustus, H. C.—3200, 3214. C.—3216.

Class 371.—Berkshire Boars, farrowed in 1914. [14 entries.]

3222 I. (218.)—WILFRED BUCKLEY, Moundsmere Manor, Basingstoke, for boar, born Jan. 8; s. Herford Othello 17997, d. Moundsmere Kernel 16329 by Axford Viscount 15008, d. Moundsmere Resolute 18007 by Highmoor Viscount 13731.

3226 II. (25.)—G. S. F. EDWARDS, Nunthorpe Hall, Yorks, for boar, born Feb. 4, bred by the Hon. Claud B. Portman, Goldcote, Stratford-on-Avon; s. Enham Manx 15301, d. Goldcote Dolly 16245 by One A 15006.

3220 III. (23.)—HIS MAJESTY THE KING, Sandringham, for boar, born Jan. 1; s. Minley Warrior 15682, d. Motcombe Queen 16790 by Cognac 1490.

3228 E. N. & H. C.—JAMES H. ISMAT, Iwerne Minster, Blandford.

H. C.—3221, 3227, 3232. C.—3228.

Class 372.—Berkshire Breeding Sows, farrowed in 1910, 1911, or 1912.

[8 entries.]

3237 I. (210.) & R. N. for Champion.—L. CURRIE, Minley Manor, Farnborough, Hants, for Minley Primrose 15649, born Jan. 13, 1910, farrowed Jan. 17; s. Compton Supreme 13689, d. Minley Resolute 18007 by Highmoor Viscount 13731.

3234 II. (25.)—H. R. BRETTON, Hammonds, Ockendon, Reading, for Venus, born Sept. 17, 1912, bred by R. B. Vincent, Manor Farm, Waterston, Dorchester; s. Venus 16867, d. Compton Grey 16729 by Manor First Venture 16332.

Size of 55 lbs. given by the British Berkshire Society for the best Boar farrowed in 1914.
Given by the British Berkshire Society.

Award of Live Stock Prizes at Shrewsbury, 1914. EXHIBIT

Otherwise stated, each prize animal named below was "bred by exhibitor."

Class 582.—Lincolnshire Curly-coated Boars, farrowed in 1913.¹

[7 entries.]

- 582 I. (10.)—**E. N. for Champion.**—GEORGE FRER, Tolethorpe House, Deeping St. Nicholas, Spalding, for Kookery Tom of the Glen 2nd, born in Feb., bred by J. Wiabeck; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 582 II. (25.)—FREDERICK E. BOWSER, Wigtoft, Boston, for Callow Park Triumph 213, born Jan. 10; s. Crowland Horace 211, d. Hale Abbe 18th 124 by Caythorpe Emperor 1301.
- 582 III. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 582 IV. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 582 V. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 582 VI. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 582 VII. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.

Class 583.—Lincolnshire Curly-coated Boars, farrowed in 1914.

[10 entries.]

- 583 I. (10.)—GEORGE FRER, Tolethorpe House, Deeping St. Nicholas, Spalding, for Kookery Tom of the Glen 2nd, born Jan. 10; s. Vainona Deeping 241, d. Deeping Prize 4th 760 by Asgar 1913.
- 583 II. (25.)—FREDERICK E. BOWSER, Wigtoft, Boston, for Callow Park Triumph 213, born Jan. 10; s. Crowland Horace 211, d. Hale Abbe 18th 124 by Caythorpe Emperor 1301.
- 583 III. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 583 IV. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 583 V. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 583 VI. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 583 VII. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 583 VIII. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 583 IX. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 583 X. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.

Class 584.—Lincolnshire Curly-coated Breeding Sows, farrowed in 1910, 1911, or 1912. [7 entries.]

- 584 I. (10.)—**E. N. for Champion.**—GEORGE FRER, Tolethorpe House, Deeping St. Nicholas, Spalding, for Deeping Prize 30th 760, born May 10, 1912, farrowed Jan. 5; s. Vainona Deeping 241, d. Deeping Prize 24th 749 by Carrington Grange Celtic 791.
- 584 II. (25.)—FREDERICK E. BOWSER, Wigtoft, Boston, for Callow Park Triumph 213, born Jan. 10; s. Crowland Horace 211, d. Hale Abbe 18th 124 by Caythorpe Emperor 1301.
- 584 III. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 584 IV. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 584 V. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 584 VI. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.
- 584 VII. (43.)—LEOPOLD C. HARVEY, Spalding, for Ruston's Welter, born March 24, bred by T. G. Moore, Callow Park House, Evington Road, Leicester; s. Wignott Marshland 241, d. Midville Lane 4th 684 by Asgar 1913.

Class 585.—Lincolnshire Curly-coated Sows, farrowed in 1913. [8 entries.]

- 585 I. (10.)—**E. N. for Champion.**—LEOPOLD C. HARVEY, Spalding, for Marshland Marion 2nd 618, born in Jan.; s. Marshland Elm 5th 214, d. Marshland Marion 1st 618 by Asgar 1913.
- 585 II. (25.)—WILLIAM BRAY, East Kent, Spilsby, for Midville Eva 570, born Jan. 8, bred by Henry Caudwell, Old Leake, Boston; s. Burton Hulan 2819, d. Midville Princess 2nd 606 by Caythorpe Emperor 1301.
- 585 III. (43.)—HENRY CAUDWELL, Old Leake, Boston, for Midville Eva 4th 673, born Jan. 10; s. Burton Hulan 2819, d. Midville Princess 2nd 606 by Caythorpe Emperor 1301.
- 585 IV. (43.)—HENRY CAUDWELL, Old Leake, Boston, for Midville Eva 4th 673, born Jan. 10; s. Burton Hulan 2819, d. Midville Princess 2nd 606 by Caythorpe Emperor 1301.
- 585 V. (43.)—HENRY CAUDWELL, Old Leake, Boston, for Midville Eva 4th 673, born Jan. 10; s. Burton Hulan 2819, d. Midville Princess 2nd 606 by Caythorpe Emperor 1301.
- 585 VI. (43.)—HENRY CAUDWELL, Old Leake, Boston, for Midville Eva 4th 673, born Jan. 10; s. Burton Hulan 2819, d. Midville Princess 2nd 606 by Caythorpe Emperor 1301.
- 585 VII. (43.)—HENRY CAUDWELL, Old Leake, Boston, for Midville Eva 4th 673, born Jan. 10; s. Burton Hulan 2819, d. Midville Princess 2nd 606 by Caythorpe Emperor 1301.
- 585 VIII. (43.)—HENRY CAUDWELL, Old Leake, Boston, for Midville Eva 4th 673, born Jan. 10; s. Burton Hulan 2819, d. Midville Princess 2nd 606 by Caythorpe Emperor 1301.

Class 386.—Three Lincolnshire Curly-coated Sows, farrowed in 1914. [10 entries.]

- 386 I. (10.)—FREDERICK E. BOWSER, Wigtoft, Boston, for sows, born Jan. 21; s. Hemswell Farrier George 4th 2745, d. Wigtoft Sensation 172 by Firaby Dreadnought 1656.
- 386 II. (25.)—C. E. HARRIS & SONS, Great Hale Fen, Heckington, Lincs., for sows, born Jan. 10; s. Crowland Horace 211, d. Hale Abbe 18th 124 by Caythorpe Emperor 1301.
- 386 III. (43.)—LEOPOLD C. HARVEY, Spalding, for sows, born Jan. 12; s. Bold King 2801, d. Marshland Martha 4th 618 by Lonsborough's Prince 1125.
- 386 IV. (43.)—LEOPOLD C. HARVEY, Spalding, for sows, born Jan. 12; s. Bold King 2801, d. Marshland Martha 4th 618 by Lonsborough's Prince 1125.
- 386 V. (43.)—LEOPOLD C. HARVEY, Spalding, for sows, born Jan. 12; s. Bold King 2801, d. Marshland Martha 4th 618 by Lonsborough's Prince 1125.
- 386 VI. (43.)—LEOPOLD C. HARVEY, Spalding, for sows, born Jan. 12; s. Bold King 2801, d. Marshland Martha 4th 618 by Lonsborough's Prince 1125.
- 386 VII. (43.)—LEOPOLD C. HARVEY, Spalding, for sows, born Jan. 12; s. Bold King 2801, d. Marshland Martha 4th 618 by Lonsborough's Prince 1125.
- 386 VIII. (43.)—LEOPOLD C. HARVEY, Spalding, for sows, born Jan. 12; s. Bold King 2801, d. Marshland Martha 4th 618 by Lonsborough's Prince 1125.
- 386 IX. (43.)—LEOPOLD C. HARVEY, Spalding, for sows, born Jan. 12; s. Bold King 2801, d. Marshland Martha 4th 618 by Lonsborough's Prince 1125.
- 386 X. (43.)—LEOPOLD C. HARVEY, Spalding, for sows, born Jan. 12; s. Bold King 2801, d. Marshland Martha 4th 618 by Lonsborough's Prince 1125.

¹ Prizes given by the Lincolnshire Curly-coated Pig Breeders' Association.
² Champion Prize of £5 5s. given by the Lincolnshire Curly-coated Pig Breeders' Association for the best Sow in Classes 583-585.
³ Champion Prize of £5 5s. given by the Lincolnshire Curly-coated Pig Breeders' Association for the best Sow in Classes 584 and 585.

Award of Poultry Prizes at Shrewsbury, 1914. cxxi

Class 396.—Modern Game Hens or Pullets, any colour. [7 entries.]

- I. (30s.) & 75 III. (10s.)—CHARLES W. BRIERLEY, Brookside, Bramfield, R.S.O.
 II. (20s.) & 72 R. N. & H. C.—J. BRENNAN, Baldersley Poultry Farm, Baldersley, C. —106.

Class 397.—Black Samatra Game Cocks or Cockerels. [13 entries.]

- I. (30s.) & 111 II. (20s.)—R. S. MARSDEN, Kempstone, Clitheroe.
 II. (20s.) & 73 R. N. & H. C.—J. W. HERBERT, Stichester, near Reading.
 III. (10s.) & 91, 93.

Class 398.—Black Samatra Game Hens or Pullets. [14 entries.]

- I. (30s.) & 111 II. (20s.)—W. B. SPARROW, West Moor, near Wimborne, Dorset.
 II. (20s.) & 73 R. N. & H. C.—J. W. HERBERT, Stichester, near Reading.
 III. (10s.) & 91, 93.

Class 401.—Langshan Cocks or Cockerels. [5 entries.]

- I. (30s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 II. (20s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 III. (10s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.

Class 402.—Langshan Hens or Pullets. [8 entries.]

- I. (30s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 II. (20s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 III. (10s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.

Class 403.—Croad Langshan Cocks or Cockerels. [21 entries.]

- I. (30s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 II. (20s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 III. (10s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.

Class 404.—Croad Langshan Hens or Pullets. [13 entries.]

- I. (30s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 II. (20s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 III. (10s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.

Class 405.—Barred Plymouth Rock Cocks. [6 entries.]

- I. (30s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 II. (20s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 III. (10s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.

Class 406.—Barred Plymouth Rock Hens. [12 entries.]

- I. (30s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 II. (20s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 III. (10s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.

Class 407.—Barred Plymouth Rock Cockerels. [16 entries.]

- I. (30s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 II. (20s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 III. (10s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.

Class 408.—Barred Plymouth Rock Pullets. [18 entries.]

- I. (30s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 II. (20s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.
 III. (10s.) & 112 R. N. & H. C.—JOSEPH PICKERILL, Sound Council School, Nantwich.

* Special Prize of £1 given by the Croad Langshan Club for the best Croad Langshan in Classes 403 and 404.

* Special Prize given by the Barred Plymouth Rock Club for the best Barred Plymouth Rock in Classes 405-408.

Award of Poultry Prizes at Shrewsbury, 1914. cxxiii

Class 421.—White Wyandotte Cocks. [15 entries.]

- 361 I. (30s.) & R.N. for Champion. 1) — MRS. E. A. LYCETT-GREEN, Darrington Hall,
 362 II. (20s.) — SAMUEL GRAHAM & SON, 51 Spring Bank, New Mills near Stockport.
 363 III. (10s.) — HUGH GUNN, Castle Villa Poultry Farm, Gloucester.
 364 R.N. & H.C. — MISS R. B. BARCOCK, Grange Hill Poultry Yard, Chigwell Row.
 365 H.C. — 275, 277, 278, 280. C.—282.

Class 422.—White Wyandotte Hens. [8 entries.]

- 365 I. (30s.) — JOHN CHIVERS, "Wychfield," Cambridge.
 366 II. (20s.) — SAMUEL TURNER, Puckington Road, Ashby-de-la-Zouch.
 367 III. (10s.) — ALLAN MOSS, Charnwood Poultry Farm, Shepshed, near Loughborough.
 368 R.N. & H.C. — ROBERT STEPHENSON, Manor House, Burwell.

Class 423.—White Wyandotte Cockerels. [17 entries.]

- 368 I. (30s.) & Champion. 1) — TOM H. FURNES, Carlton House, Chesterfield.
 369 II. (20s.) — HUGH GUNN, Castle Villa Poultry Farm, Gloucester.
 370 III. (10s.) — PERRY M. KNIGHT, Oldfield Poultry Farm, Oak worth, Keighley.
 371 R.N. & H.C. — G. BLUNDRELL, Blackleach House, Woodplumpton, near Preston.
 372 H.C. — 283, 286, 301, 302. C.—309.

Class 424.—White Wyandotte Pullets. [18 entries.]

- 374 I. (30s.) & R.N. III. (10s.) — HUGH GUNN, Castle Villa Poultry Farm, Gloucester.
 375 II. (20s.) — JOHN CHIVERS, "Wychfield," Cambridge.
 376 R.N. & H.C. — TOM H. FURNES, Carlton House, Chesterfield.
 377 H.C. — 310, 312, 323, 325. C.—322.

Class 425.—Black Wyandotte Cocks. [6 entries.]

- 378 I. (30s.) & Champion. 1) — CHARLES HEATH, Keele Road, Newcastle-under-Lyme.
 379 II. (20s.) — T. C. HEATH, Keele, Newcastle, Staffs.
 380 III. (10s.) & 382 R.N. & H.C. — R. A. BLAKEBOROUGH, Beechgrove, Brighouse.
 381 H.C. — 383.

Class 426.—Black Wyandotte Hens. [10 entries.]

- 380 I. (30s.) & R.N. for Champion. 1) — ROGER HARGREAVES, Banks Farm, Whalley, Lancs.
 381 II. (20s.) — CHARLES HEATH, Keele Road, Newcastle-under-Lyme.
 382 III. (10s.) — TOM H. FURNES, Carlton House, Chesterfield.
 383 R.N. & H.C. — T. C. HEATH, Keele, Newcastle, Staffs.
 384 H.C. — 384, 341. C.—339, 343.

Class 427.—Black Wyandotte Cockerels. [5 entries.]

- 384 I. (30s.) — T. C. HEATH, Keele, Newcastle, Staffs.
 385 II. (20s.) — S. O. KING, Pulborough, Sussex.
 386 III. (10s.) — R. A. BLAKEBOROUGH, Beechgrove, Brighouse.
 387 R.N. & H.C. — H. E. CALDWELL, 33 Hindley Hill, near Bolton.

Class 428.—Black Wyandotte Pullets. [5 entries.]

- 387 I. (30s.) — ROGER HARGREAVES, Banks Farm, Whalley, Lancs.
 388 II. (20s.) — T. C. HEATH, Keele, Newcastle, Staffs.
 389 III. (10s.) — HERBERT GARLICK, Kirby Lonsdale.
 390 R.N. & H.C. — FRED J. FROST, High Street House, Biddulph, Staffs.

Class 429.—Partridge Wyandotte Cocks or Cockerels. [4 entries.]

- 390 I. (30s.) & Champion. 1) & 357 R.N. & H.C. — RICHARD WATSON, Thorn Garth,
 Thackley, Bradford.
 391 II. (20s.) — HUGH GUNN, Castle Villa Poultry Farm, Gloucester.
 392 III. (10s.) — CLIFFORD WILLISON, Bubney, Whitchurch, Salop.

Class 430.—Partridge Wyandotte Hens or Pullets. [6 entries.]

- 392 I. (30s.) & 392 III. (10s.) — HUGH GUNN, Castle Villa Poultry Farm, Gloucester.
 393 II. (20s.) — RICHARD WATSON, Thorn Garth, Thackley, Bradford.
 394 R.N. & H.C. — CLIFFORD WILLISON, Bubney, Whitchurch, Salop.
 395 H.C. — 363.

Class 431.—Columbian Wyandotte Cocks or Cockerels. [5 entries.]

- 395 I. (30s.) — WILLIAM HODGES, Otlands Farm, Weybridge, Surrey.
 396 II. (20s.) — ARTHUR E. WARD, Great Warford, Moberley, Cheshire.
 397 III. (10s.) — BENON & FILDES, Prize Poultry Farm, Moberley, Cheshire.

1 Special Prize of 10s and the "Visiting Cup" value £5 given by the White Wyandotte Club, for the best White Wyandotte in Classes 421-424.

2 Special Prize of 10s given by the Black Wyandotte Club for the best Black Wyandotte in Classes 425-428.

3 Silver Flower Vase given by the Partridge Wyandotte Club for the best Partridge Wyandotte in Classes 429 and 430.

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Class 432.—*Columbian Wyandotte Hens or Pullets.* [4 entries.]

- 370 I. (30s.)—WILLIAM HODGES, Outlands Farm, Weybridge, Surrey.
 372 II. (20s.)—F. LAWFORD STOKY, Woodcote, Crookham Hill, Edenbridge.
 373 III. (10s.)—WILLIAM Y. JENKES, Hartfell House, Lymn, Cheshire.

Class 433.—*Blue Wyandotte Cocks or Cockerels.* [7 entries.]

- 373 I. (30s.)—J. H. EVANS, The Hong Kong, Gorseinon.
 375 II. (20s.)—MRS. W. HOLDSWORTH, St. Jude's Road West, Wolverhampton.
 374 III. (10s.)—TOM H. FURNESS, Carlton House, Chesterfield.
 376 R. N. & H. C.—MR. & MRS. H. E. SHAW, Pittingham, Wolverhampton.
 H. C.—377.

Class 434.—*Blue Wyandotte Hens or Pullets.* [5 entries.]

- 380 I. (30s.)—TOM H. FURNESS, Carlton House, Chesterfield.
 381 II. (20s.) & 384 R. N. & H. C.—MRS. W. HOLDSWORTH, St. Jude's Road West, Wolverhampton.
 383 III. (10s.)—JAMES WALLBANK, Belmont, Longridge, Preston.

Class 435.—*Wyandotte Cocks or Cockerels, any other variety.* [8 entries.]

- 386 I. (30s.)—M. HACKFORTH, Sandford Cottage, Aston, Nantwich, Cheshire.
 388 II. (20s.)—JAMES MELLOR, Rock View, Miller's Dale, near Buxton.
 391 III. (10s.)—JOHN C. TATE, Rose Cottage, Bulmer, York.
 390 R. N. & H. C.—RICHARD WATSON, Thorn Garth, Thackley, Bradford.
 H. C.—385, 388.

Class 436.—*Wyandotte Hens or Pullets, any other variety.* [4 entries.]

- 396 I. (30s.)—RICHARD WATSON, Thorn Garth, Thackley, Bradford.
 394 II. (20s.)—M. HACKFORTH, Sandford Cottage, Aston, Nantwich, Cheshire.
 395 III. (10s.)—LORD HARLECH, Glyn, Talsarnau, N. Wales.
 393 R. N. & H. C.—THOMAS CHARLTON, Kepier Poultry Farm, Byton-on-Tyne.

Class 437.—*Buff Orpington Cocks.* [14 entries.]

- 400 I. (30s.) & R. N. for Champion.—MRS. WILKINSON, Barrow Poultry Farm, Lancaster.
 409 II. (20s.)—A. W. & S. CUMMINGS, Viver Hincaster, Milnthorpe.
 404 III. (10s.)—P. B. GOVETT, Tidelord, St. Germans, Cornwall.
 408 R. N. & H. C.—ROBERT L. MOND, Combe Bank, Sundridge, near Sevenoaks.
 H. C.—398, 401.

Class 438.—*Buff Orpington Hens.* [14 entries.]

- 412 I. (30s.) & 430 III. (10s.)—ROBERT L. MOND, Combe Bank, Sundridge, near Sevenoaks.
 421 II. (20s.)—THE REV. J. B. NODDER, Ashover Rectory, Chesterfield.
 411 R. N. & H. C.—H. BARKER, 5 Parkdale Road, Plumstead, Kent.
 H. C.—414, 415, 422.

Class 439.—*Buff Orpington Cockerels.* [16 entries.]

- 437 I. (30s.) & Champion.—& 436 II. (20s.)—ROBERT L. MOND, Combe Bank, Sundridge.
 431 III. (10s.)—MISS LE PATOUREL, Edenstead, Crosby-on-Eden, Cumberland.
 439 R. N. & H. C.—A. W. & S. CUMMINGS, Viver Hincaster, Milnthorpe.
 H. C.—435, 438. C.—430, 432, 437.

Class 440.—*Buff Orpington Pullets.* [29 entries.]

- 448 I. (30s.), 455 III. (10s.), & 460 R. N. & H. C.—MISS LE PATOUREL, Crosby-on-Eden.
 463 II. (20s.)—ROBERT L. MOND, Combe Bank, Sundridge, near Sevenoaks.
 H. C.—441, 451. C.—440, 449, 467.

Class 441.—*White Orpington Cocks.* [9 entries.]

- 471 I. (30s.)—ALAN T. STOREY, Brock House Farm, Freshfield, Liverpool.
 477 II. (20s.)—THE REV. J. B. NODDER, Ashover Rectory, Chesterfield.
 475 III. (10s.)—CHARLES THELLOUSON, Brodsworth Poultry Farm, Doncaster.
 472 R. N. & H. C.—MURRAY JINDNER, Ham Court Poultry Farm, Charlton Kings.
 H. C.—473, 476, 478.

Class 442.—*White Orpington Hens.* [12 entries.]

- 487 I. (30s.)—THE REV. J. B. NODDER, Ashover Rectory, Chesterfield.
 482 II. (20s.)—WILLIAM HODGES, Outlands Farm, Weybridge, Surrey.
 490 III. (10s.)—ALAN T. STOREY, Brock House Farm, Freshfield, Liverpool.
 489 R. N. & H. C.—CHARLES THELLOUSON, Brodsworth Poultry Farm, Doncaster.
 H. C.—486. C.—481.

¹ A Piece of Plate given by the Buff Orpington Club for the best Buff Orpington in Class 437-440.

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Class 443.—White Orpington Cockerels. [8 entries.]

- 443 I. (30s.) & Champion. 1.—W. H. EDWARDS, Brookfields, Puthoe, Exeter.
445 II. (20s.)—THE REV. J. B. NODDER, Ashover Rectory, Chesterfield.
H. C.—497.

Class 444.—White Orpington Pullets. [16 entries.]

- 442 I. (30s.) & Champion. 1.—W. H. EDWARDS, Brookfields, Puthoe.
549 II. (20s.)—THE REV. J. B. NODDER, Ashover Rectory, Chesterfield.
506 R. N. & H. C.—MURRAY LINDNER, Ham Court Poultry Farm, Charlton Kings.
H. C.—513.

Class 445.—Black Orpington Cocks. [14 entries.]

- 518 I. (30s.) & Champion. 1.—WILLIAM BUCH, Bkangate Poultry Farm, Herra, Kent.
516 II. (20s.)—W. M. BELL, St. Leonard's Poultry Farm, Ringwood, Hants.
527 III. (10s.)—MRS. WILKINSON, Burrow Poultry Farm, Lancaster.
522 R. N. & H. C.—MRS. RIGBY, Over Hall, Winsford.
H. C.—517, 521. C.—518.

Class 446.—Black Orpington Hens. [8 entries.]

- 534 I. (30s.)—MORRIS SMITH, The Cottams, Oswestry.
535 II. (20s.)—W. H. SMITH & SON, Peets Farm, Southport.
538 III. (10s.)—MRS. RIGBY, Over Hall, Winsford.
529 R. N. & H. C.—W. BALMET, JUN., 4 Hill Village, South Molton, Devon.

Class 447.—Black Orpington Cockerels. [7 entries.]

- 538 I. (30s.) & 542 R. N. & H. C.—W. M. BELL, St. Leonard's Poultry Farm, Ringwood.
542 II. (20s.)—J. PIGGOTT, The Folly, Haddenham, Bucks.
537 III. (10s.)—LESLIE H. BACCHUS, Brooklyn Poultry Farm, Ifield, Crawley, Sussex.
H. C.—540, 543.

Class 448.—Black Orpington Pullets. [7 entries.]

- 544 I. (30s.) & R. N. for Champion. 1. & 549 II. (20s.)—W. M. BELL, St. Leonard's Poultry Farm, Ringwood, Hants.
548 III. (10s.)—J. PIGGOTT, The Folly, Haddenham, Bucks.
547 R. N. & H. C.—ROBERT L. MOND, Combe Bank, Sundridge, near Sevenoaks.
H. C.—550.

Class 449.—Blue Orpington Cocks. [10 entries.]

- 555 I. (30s.)—CAPT. MAX DE BATHE, Hartley Court, Reading.
560 II. (20s.)—GEORGE TOMPEIN, Murree Poultry Farm, Marlen, Kent.
553 III. (10s.)—A. E. BROWN, Staplehurst Poultry Farm, Staplehurst, Kent.
556 R. N. & H. C.—A. H. DRYSDALE, Wood Knoll, Lindfield, Haywards Heath.
H. C.—559. C.—558.

Class 450.—Blue Orpington Hens. [5 entries.]

- 561 I. (30s.)—ROBERT L. MOND, Combe Bank, Sundridge, near Sevenoaks.
564 II. (20s.)—THE REV. R. HOME MCCALL, Thorne Rectory, Youlth.

Class 451.—Blue Orpington Cockerels. [8 entries.]

- 573 I. (30s.)—S. W. THOMAS, Glastryn, Fforest Fach, Swansea.
566 II. (20s.)—LESLIE H. BACCHUS, Brooklyn Poultry Farm, Ifield, Crawley, Sussex.
569 III. (10s.)—CAPT. MAX DE BATHE, Hartley Court, Reading.
570 R. N. & H. C.—A. H. DRYSDALE, Wood Knoll, Lindfield, Haywards Heath.
H. C.—571.

Class 452.—Blue Orpington Pullets. [10 entries.]

- 580 I. (30s.)—A. H. DRYSDALE, Wood Knoll, Lindfield, Haywards Heath.
577 II. (20s.)—WALTER BUXTON, Trilney Poultry Farm, Medstead, Alton, Hants.
576 III. (10s.)—A. E. BROWN, Staplehurst Poultry Farm, Staplehurst, Kent.
574 R. N. & H. C.—LESLIE H. BACCHUS, Brooklyn Poultry Farm, Ifield, Crawley.
H. C.—573. C.—562.

¹ Silver Serviette Ring given by the White Orpington Club for the best White Orpington Cockerel in Class 443.

² Silver Serviette Ring given by the White Orpington Club for the best White Orpington Pullet in Class 444.

³ Special Prize of 10s. given by the Black Orpington Club for the best Black Orpington in Classes 445-448.

CCXVI. *Award of Poultry Prizes at Shrewsbury, 1914.*

Class 453.—Spangled Orpington Cocks or Cockerels. [7 entries.]
 588 I. (30s.) & Champion¹. & 585 II. (20s.)—LESLIE H. BACCHUS, Ifield, Crawley.
 590 III. (10s.)—CAPT. MAX DE BATHURST, Hartley Court, Reading.
 589 R. N. & H. C.—LAWRENCE BOOTH, Dingle Bank, Chester.
 H. C.—589. O.—584.

Class 454.—Spangled Orpington Hens or Pullets. [5 entries.]
 592 I. (30s.) & R. N. for Champion¹. & 585 III. (10s.)—LESLIE H. BACCHUS, Ifield, Crawley, Sussex.
 594 II. (20s.)—CAPT. MAX DE BATHURST, Hartley Court, Reading.
 596 R. N. & H. C.—LAWRENCE BOOTH, Dingle Bank, Chester.
 H. C.—591.

Class 455.—Orpington Cocks or Cockerels, any other colour. [4 entries.]
 598 I. (30s.)—A. E. BROWN, Staplehurst Poultry Farm, Staplehurst, Kent.
 599 II. (20s.)—CHARLES THELLUSON, Brodsworth Poultry Farm, Doncaster.
 600 III. (10s.)—CAPT. MAX DE BATHURST, Hartley Court, Reading.
 597 R. N. & H. C.—WALTER BUXTON, Trinity Poultry Farm, Medstead, Alton, Hants.

Class 456.—Orpington Hens or Pullets, any other colour. [4 entries.]
 602 I. (30s.)—CHARLES THELLUSON, Brodsworth Poultry Farm, Doncaster.
 600 R. N. & H. C.—CAPT. MAX DE BATHURST, Hartley Court, Reading.
 H. C.—603. O.—601.

Class 457.—White Leghorn Cocks or Cockerels. [5 entries.]
 604 I. (30s.)—MISS R. B. BABCOCK, Grange Hill Poultry Yards, Chigwell, Essex.
 607 II. (20s.)—R. MOSS, Lindow Terrace, Alderley Edge, Cheshire.
 605 III. (10s.)—W. E. GILLING, Canal Farm, Bradford-on-Avon, Wilts.
 606 R. N. & H. C.—CHARLES W. KELLOCK, Highfields, Andlem.

Class 458.—White Leghorn Hens or Pullets. [3 entries.]
 611 I. (30s.)—ALAN T. STOREY, Brock House Farm, Freshfield, Liverpool.
 616 II. (20s.)—H. LISTER, Glenholme, Crook, Co. Durham.
 606 III. (10s.)—MISS R. B. BABCOCK, Grange Hill Poultry Yards, Chigwell, Essex.

Class 459.—Brown Leghorn Cocks or Cockerels. [4 entries.]
 613 I. (30s.)—ERNEST L. SIMON, Penbroke.
 612 II. (20s.)—M. HACKFORTH, Sandford Cottage, Aston, Nantwich, Cheshire.
 615 III. (10s.)—JOHN JONES, Crymmych Arms, Pembroke.
 614 R. N. & H. C.—ARTHUR G. PITTS, "Tarista," Burnham, Somerset.

Class 460.—Brown Leghorn Hens or Pullets. [6 entries.]
 622 I. (30s.)—W. H. SMITH & SON, Peets Farm, Southport.
 616 II. (20s.)—J. J. RAWSON, Westholme, London Road, Kettering.
 621 III. (10s.) & 617 R. N. & H. C.—MRS. R. SMITH, Cattonfield House, Aberdeen.
 O.—620.

Class 461.—Black Leghorn Cocks or Cockerels. [4 entries.]
 626 I. (30s.)—JOHN HURST, South Terrace, Glossop.
 626 II. (20s.)—R. RODWELL, 53 Vale Street, Nelson.
 624 III. (10s.)—JOSEPH RADSON, Park Villa, Ightenhill, Burnley, Lancs.
 623 R. N. & H. C.—R. A. BLAKEBOROUGH, Beechgrove, Brighouse.

Class 462.—Black Leghorn Hens or Pullets. [6 entries.]
 628 I. (30s.)—DR. W. LAND DIBB, Bramley Park, Rotherham.
 631 II. (20s.)—R. RODWELL, 53 Vale Street, Nelson.
 629 III. (10s.)—JOSEPH RADSON, Park Villa, Ightenhill, Burnley.
 627 R. N. & H. C.—CLIFFORD WILLISON, Buhney, Whitechurch, Salop.
 H. C.—632.

Class 463.—Leghorn Cocks or Cockerels, any other colour. [11 entries.]
 633 I. (30s.)—A. R. FISH, Holme Mead, Hutton, Preston.
 635 II. (20s.)—R. S. MARSDEN, Kempstone, Clitheroe.
 634 III. (10s.)—ERNEST L. SIMON, Penbroke.
 637 R. N. & H. C.—G. & R. HENLEY, Grandborough, Winslow, Bucks.
 H. C.—636, 641. O.—639.

Class 464.—Leghorn Hens or Pullets, any other colour. [10 entries.]
 646 I. (30s.)—A. R. FISH, Holme Mead, Hutton, Preston.
 650 II. (20s.)—R. S. MARSDEN, Kempstone, Clitheroe.
 641 III. (10s.)—THE REV. C. R. MARTYN, Tamerton Foliot Vicarage, Crown Hill, Devon.
 644 R. N. & H. C.—MRS. A. J. PAIN, Heath Park House, Leighton Buzzard.
 H. C.—648, 653. O.—652.

¹ Special Prize given by the Spangled Orpington Club for the best Spangled Orpington in Classes 463 and 454.

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Class 465.—*Minorca Cocks or Cockerels.* [6 entries.]

- 654 I. (30s.) & 558 II. (30s.) & 659 III. (10s.)—A. G. PITTS "Tarista," Burnham, Somerset.
 656 R. N. & H. C.—FURLAND BROTHERS, Bridgwater, Somerset.
 H. C.—655. C.—657.

Class 466.—*Minorca Hens or Pullets.* [9 entries.]

- 651 I. (30s.)—W. BINNIE, Harviestoun, Dollar.
 657 II. (20s.) & 663 III. (10s.)—FURLAND BROTHERS, Bridgwater, Somerset.
 655 R. N. & H. C.—ARTHUR G. PITTS "Tarista," Burnham, Somerset.
 H. C.—660. C.—662.

Class 467.—*Scots Dumpy Cocks or Cockerels.* [7 entries.]

- 673 I. (30s.) & 669 III. (10s.)—JOHN MAJOR, Ditton, Langley, Bucks.
 672 II. (20s.)—J. E. KERR, Harviestoun Castle, Dollar.
 675 R. N. & H. C.—THOMAS MUCKERLER, Minorena, Ladybank, Fife.
 H. C.—671. C.—674.

Class 468.—*Scots Dumpy Hens or Pullets.* [10 entries.]

- 680 I. (30s.)—J. E. KERR, Harviestoun Castle, Dollar.
 679 II. (20s.)—JOHN CRAIG, Fauldside Cottage, Dreghorn, Ayrshire.
 683 III. (10s.) & 676 R. N. & H. C.—JAMES W. BROWN, Skellyton Farm, Lackball.
 H. C.—681, 682. C.—677.

Class 469.—*Silver Grey Dorking Cocks.* [4 entries.]

- 687 I. (30s.) & R. N. for Champion. 1.—J. BRENNAND, Baldersley Poultry Farm, Baldersley, S.O., Yorks.
 688 II. (30s.)—CAPT. PHIPPS HORNBY, Somerton, Somerset.
 689 III. (10s.)—ARTHUR C. MAJOR, Ditton, Langley, Bucks.

Class 470.—*Silver Grey Dorking Hens.* [6 entries.]

- 690 I. (30s.) & Champion. 1.—C. AITKENHEAD, Stud Farm, Seaham Harbour, Co. Durham.
 691 II. (30s.)—J. BRENNAND, Baldersley Poultry Farm, Baldersley, S.O., Yorks.
 694 III. (10s.)—ARTHUR C. MAJOR, Ditton, Langley, Bucks.
 695 R. N. & H. C.—JAMES ROGERS, Forneth, Blairgowrie.
 H. C.—693.

Class 471.—*Dark Coloured Dorking Cocks.* [7 entries.]

- 699 I. (30s.) & Champion. 2.—J. BRENNAND, Baldersley Poultry Farm, Baldersley, S.O.
 701 II. (30s.)—CAPT. PHIPPS HORNBY, Somerton, Somerset.
 698 III. (10s.)—MISS R. B. BABCOCK, Grange Hill Poultry Yards, Chigwell Row.
 700 R. N. & H. C.—J. M. DEWHURST, JUN., Heskin Hall, near Chorley.
 H. C.—697. C.—702.

Class 472.—*Dark Coloured Dorking Hens.* [6 entries.]

- 705 I. (30s.) & R. N. for Champion. 2.—J. BRENNAND, Baldersley Poultry Farm, Baldersley.
 708 II. (30s.)—ARTHUR C. MAJOR, Ditton, Langley, Bucks.
 706 III. (10s.)—J. M. DEWHURST, JUN., Heskin Hall, near Chorley.
 703 R. N. & H. C.—C. AITKENHEAD, Stud Farm, Seaham Harbour, Co. Durham.
 H. C.—707.

Class 473.—*Dorking Cockerels, any colour.* [6 entries.]

- 709 I. (30s.)—C. AITKENHEAD, Stud Farm, Seaham Harbour, Co. Durham.
 714 II. (20s.) & 711 R. N. & H. C.—ARTHUR C. MAJOR, Ditton, Langley, Bucks.
 712 III. (10s.)—J. BRENNAND, Baldersley Poultry Farm, Baldersley, S.O., Yorks.
 H. C.—710, 713.

Class 474.—*Dorking Pullets, any colour.* [6 entries.]

- 719 I. (30s.)—CAPT. PHIPPS HORNBY, Somerton, Somerset.
 717 II. (20s.)—ARTHUR C. MAJOR, Ditton, Langley, Bucks.
 715 III. (10s.)—C. AITKENHEAD, Stud Farm, Seaham Harbour, Co. Durham.
 716 R. N. & H. C.—R. AITKENHEAD, Estate Office, Tongewood, Hawkhurst, Kent.
 H. C.—718. C.—720.

Class 475.—*Red Sussex Cocks.* [10 entries.]

- 730 I. (30s.)—FRANK H. WHEELER, Bridge House, Marden, Kent.
 721 II. (20s.)—LORD ROTHSCHILD, Tring Park, Herts.
 728 III. (10s.)—SANDERSON BROTHERS, Crossways Poultry Farm, Plummers Plain, Horsham.
 725 R. N. & H. C.—A. J. FALKENSTEIN, Sussex Poultry Farm, Heathfield, Sussex.
 H. C.—722. C.—723.

¹ Special Prize, value £1 1s., given by the Dorking Club for the best Silver Grey Dorking.

² Special Prize, value £1 1s., given by the Dorking Club for the best Dark Coloured Dorking.

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Class 476.—Red Sussex Hens. [6 entries.]

- 734 I. (30s. & R. N. for Champion¹).—E. T. B. COPPARD, The Glen, Mayfield.
 735 II. (20s.).—DR. J. E. SHAW, 23 Caledonia Place, Clifton, Bristol.
 736 III. (10s.).—FRANK H. WHEELER, Bridge House, Marden, Kent.
 732 E. N. & H. C.—A. J. FALKENSTEIN, Sussex Poultry Farm, Heathfield, Sussex.
 H. C.—733.

Class 477.—Red Sussex Cockerels. [9 entries.]

- 742 I. (30s. & Champion¹). & 737 II. (20s.).—LORD ROTHSCHILD, Tring Park, Herts.
 739 III. (10s.).—SAUNDERTON POULTRY FARM, Bledlow Ridge, Wallingford, Berks.
 741 E. N. & H. C.—A. J. FALKENSTEIN, Sussex Poultry Farm, Heathfield, Sussex.
 H. C.—734.

Class 478.—Red Sussex Pullets. [7 entries.]

- 747 I. (30s.).—J. BAILY & SON, Heathfield, Sussex.
 746 II. (20s.). & 750 III. (10s.).—LORD ROTHSCHILD, Tring Park, Herts.
 749 E. N. & H. C.—A. J. FALKENSTEIN, Sussex Poultry Farm, Heathfield, Sussex.
 H. C.—752 & 751.

Class 479.—Light Sussex Cocks. [12 entries.]

- 756 I. (30s.). & 753 II. (20s.).—LORD ROTHSCHILD, Tring Park, Herts.
 753 III. (10s.).—J. BAILY & SON, Heathfield, Sussex.
 757 E. N. & H. C.—MISS K. KAY-MOUAT, Heathlands Farm, Malvern Wells.
 H. C.—760 & 759.

Class 480.—Light Sussex Hens. [10 entries.]

- 767 I. (30s. & R. N. for Champion¹). & 772 II. (20s.).—THE REV. G. A. CRAWSHAY, Melchbourne, Bedfordshire.
 773 III. (10s.).—LORD ROTHSCHILD, Tring Park, Herts.
 770 E. N. & H. C.—WILLIAM HODGES, Oatlands Farm, Weybridge, Surrey.
 H. C.—774 & 765.

Class 481.—Light Sussex Cockerels. [10 entries.]

- 777 I. (30s. & Champion¹).—THE REV. G. A. CRAWSHAY, Melchbourne, Bedfordshire.
 779 II. (20s.).—A. J. FALKENSTEIN, Sussex Poultry Farm, Heathfield, Sussex.
 778 III. (10s.).—LORD ROTHSCHILD, Tring Park, Herts.
 778 E. N. & H. C.—S. F. EDGE, Gallops Homestead, Ditchling, Hassocks.
 H. C.—783 & 781.

Class 482.—Light Sussex Pullets. [12 entries.]

- 785 I. (30s.). & 790 E. N. & H. C.—J. BAILY & SON, Heathfield, Sussex.
 787 II. (20s.).—THE REV. G. A. CRAWSHAY, Melchbourne, Bedfordshire.
 792 III. (10s.).—WILLIAM HODGES, Oatlands Farm, Weybridge, Surrey.
 H. C.—791 & 788.

Class 483.—Speckled Sussex Cocks. [14 entries.]

- 803 I. (30s.).—A. J. FALKENSTEIN, Sussex Poultry Farm, Heathfield, Sussex.
 797 II. (20s.). & 800 E. N. & H. C.—LORD ROTHSCHILD, Tring Park, Herts.
 806 III. (10s.).—W. M. GRIFFITHS, Garden House, Cwmgiedd, Ystradgynlais, Breconshire.
 H. C.—798 & 807.

Class 484.—Speckled Sussex Hens. [10 entries.]

- 813 I. (30s.).—THE REV. G. A. CRAWSHAY, Melchbourne, Bedfordshire.
 817 II. (20s.).—LORD ROTHSCHILD, Tring Park, Herts.
 815 III. (10s.).—A. J. FALKENSTEIN, Sussex Poultry Farm, Heathfield, Sussex.
 812 E. N. & H. C.—J. BAILY & SON, Heathfield, Sussex.
 H. C.—811 & 820.

Class 485.—Speckled Sussex Cockerels. [12 entries.]

- 822 I. (30s. & Champion¹). & 828 III. (10s.).—J. BAILY & SON, Heathfield, Sussex.
 829 II. (20s.). & 821 E. N. & H. C.—LORD ROTHSCHILD, Tring Park, Herts.
 H. C.—831 & 827.

Class 486.—Speckled Sussex Pullets. [11 entries.]

- 837 I. (30s. & R. N. for Champion¹).—A. J. FALKENSTEIN, Heathfield, Sussex.
 838 II. (20s.).—E. T. B. COPPARD, The Glen, Mayfield.
 839 III. (10s.).—ARTHUR TOWARD, Chandler Poultry Farm, Maidenhead.
 841 E. N. & H. C.—LORD ROTHSCHILD, Tring Park, Herts.
 H. C.—838 & 833.

¹ Silver Serviette Ring given by the Sussex Poultry Club for the best Red Sussex in Classes 476-478.

² Silver Serviette Ring given by the Sussex Poultry Club for the best Light Sussex in Classes 479-482.

³ Silver Serviette Ring given by the Sussex Poultry Club for the best Speckled Sussex in Classes 483-486.

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Class 487.—British Rhode Island Red Cocks. [27 entries.]

- 857 I. (30s.) & Champion¹.—ARTHUR H. JONES, Settleton Rectory, Barton, Wilts.
 858 II. (20s.)—F. E. MASON, Timberbrook House, Compton.
 859 III. (10s.)—MRS. W. B. GOODE, Aldborough Lodge, Boroughbridge, Yorks.
 864 R. N. & H. C.—MRS. E. M. FLETCHER, Edenor, Bakewell, Derbyshire.
 H. C.—882. C.—883.

Class 488.—British Rhode Island Red Hens. [12 entries.]

- 861 I. (30s.)—MRS. ALFRED SWINGLER, Smalley Hall, Derbyshire.
 873 II. (20s.)—MRS. W. B. GOODE, Aldborough Lodge, Boroughbridge, Yorks.
 878 III. (10s.)—MRS. A. J. JONES, Broadway House, Little Hercton, Tenbury.
 879 R. N. & H. C.—MRS. J. M. E. COOPER, Culland Hall, Brailford, Derby.
 H. C.—872. C.—880.

Class 489.—British Rhode Island Red Cockerels. [12 entries.]

- 881 I. (30s.) & R. N. for Champion¹, & 883 II. (20s.)—MRS. ALFRED SWINGLER, Smalley Hall, Derbyshire.
 882 III. (10s.)—MISS EMILY CLIBRAN, Woodhead Poultry Farm, Timperley, Cheshire.
 883 R. N. & H. C.—MRS. A. J. JONES, Broadway House, Little Hercton, Tenbury.
 H. C.—889. C.—884.

Class 490.—British Rhode Island Red Pullets. [22 entries.]

- 885 I. (30s.)—MRS. ALFRED SWINGLER, Smalley Hall, Derbyshire.
 886 II. (20s.)—JOSEPH H. HEAP & SON, Commercial Hotel, Wheelock, Sandbach.
 890 III. (10s.)—MISS M. HOGARTH CLAT, Wembury House, Plymouth, Devon.
 912 R. N. & H. C.—MISS EMILY CLIBRAN, Woodhead Poultry Farm, Timperley.
 H. C.—888. C.—901.

Class 491.—Aucona Cocks or Cockerels. [4 entries.]

- 917 I. (30s.), 918 II. (20s.), & 920 III. (10s.)—JOSEPH RADSON, Park Villa, Lichtenhill, Burnley, Lancs.
 918 R. N. & H. C.—WILLIAM NELSON, Jumble Hall Bar, Buxenden, Acreington.

Class 492.—Aucona Hens or Pullets. [7 entries.]

- 921 I. (30s.), & 927 II. (20s.)—JOSEPH RADSON, Park Villa, Lichtenhill, Burnley, Lancs.
 924 III. (10s.)—JAMES H. HEAP, Bay Horse Hotel, Worsthorne, Burnley.
 925 R. N. & H. C.—WILLIAM NELSON, Jumble Hall Bar, Buxenden, Acreington.
 H. C.—923. C.—926.

Class 493.—Yokohama Cocks or Cockerels. [16 entries.]

- 932 I. (30s.) & Champion².—R. S. MILLER, Greenock Hill, Broomhouse, Glasgow.
 931 II. (20s.)—WILLIAM HUMPHREY, Black Park, Horford, Norwich.
 943 III. (10s.)—MRS. L. C. PRIDEAUX, Lindfield, Haywards Heath.
 937 R. N. & H. C.—ROBERT L. MOND, Combe Bank, Sandridge, near Sevenoaks.
 H. C.—928, 929, 930, 933, 934. C.—935, 936, 939, 943.

Class 494.—Yokohama Hens or Pullets. [14 entries.]

- 952 I. (30s.) & R. N. for Champion¹, & 947 R. N. & H. C.—R. SCOTT MILLER, Greenock Hill, Broomhouse, near Glasgow.
 949 II. (20s.)—MRS. L. C. PRIDEAUX, Lindfield, Haywards Heath.
 951 III. (10s.)—THE REV. W. SERJEANTSON, Acton Burnell Rectory, Shrewsbury.
 H. C.—944, 945, 948, 953, 956. C.—946, 957.

Class 495.—Brahma Cocks or Cockerels. [8 entries.]

- 959 I. (30s.) & 965 III. (10s.)—ARTHUR F. WARD, Great Warford, Moberley, Cheshire.
 964 II. (20s.)—JAMES C. TOZER, Stoke House, Deacompt.
 963 R. N. & H. C.—S. W. THOMAS, Glasfryn, Forest Fach, Swansea.
 H. C.—958, 960, 962. C.—961.

Class 496.—Brahma Hens or Pullets. [1 entries.]

- 966 I. (30s.)—ARTHUR F. WARD, Great Warford, Moberley, Cheshire.
 966 II. (20s.)—G. W. HENSHALL, The Hollies, Timperley, Cheshire.
 968 III. (10s.)—S. W. THOMAS, Glasfryn, Forest Fach, Swansea.
 967 R. N. & H. C.—H. L. POPHAM, Hunstrete House, Ponsford, near Bristol.

Class 497.—Cochin Cocks or Cockerels. [4 entries.]

- 970 I. (30s.) & 972 II. (20s.)—GEORGE H. PROCTER, Flass House, Durham.
 971 III. (10s.) & 973 R. N. & H. C.—ROBERT S. WILLIAMSON, The Grange, Hednesford.

¹ Silver Spoon given by the British Rhode Island Red Club, for the best Bird in

Classes 487-490.

² Silver Medal given by the Yokohama Club for the best Yokohama in Classes 493 and 494.

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Class 498.—Cochin Hens or Pullets. [3 entries.]

- 974 I. (30s.) & 975 III. (10s.)—GEORGE H. PROCTER, Flass House, Durham.
975 II. (20s.)—ALAN T. STORRY, Brock House Farm, Freshfield, Liverpool.

Class 499.—Maline Cocks or Cockerels. [7 entries.]

- 977 I. (30s. & Champion¹), & 978 III. (10s.)—MRS. F. HERBERT, Ty-Gwyn, Baglan Hall.
982 II. (20s.)—MRS. TERROT, Wispington House, Cookham, Berks.
980 E. N. & H. C.—S. W. THOMAS, Glasfryn, Forest Fach, Swansea.
H. C.—981. C.—983.

Class 500.—Maline Hens or Pullets. [9 entries.]

- 984 I. (30s.)—MRS. TERROT, Wispington House, Cookham, Berks.
989 II. (20s.)—S. W. THOMAS, Glasfryn, Forest Fach, Swansea.
992 III. (10s.)—MRS. F. HERBERT, Ty-Gwyn, Baglan, Mounthabira.
986 E. N. & H. C.—HENON & FILDES, Frize Poultry Farm, Mobbsley, Cheshire.
H. C.—990. C.—985, 988.

Class 501.—Silver Campine Cocks or Cockerels. [14 entries.]

- 1002 I. (30s.)—THE REV. E. LEWIS JONES, Heyope Rectory, Knighton, Radnorshire.
1006 II. (20s.)—MRS. WINSLOE, Dunsdale, Frodsham, Cheshire.
990 III. (10s.)—RICHARD EDWARDS, Staunton Old Court, Pembridge.
1004 E. N. & H. C.—HERBERT F. MULLENS, Oaken, Wottonhampton.
H. C.—1000, 1003. C.—993.

Class 502.—Silver Campine Hens or Pullets. [12 entries.]

- 1011 I. (30s.)—CAPT. MAX DE BATHE, Hartley Court, Reading.
1019 II. (20s.)—MRS. WINSLOE, Dunsdale, Frodsham, Cheshire.
1014 III. (10s.)—THE REV. E. LEWIS JONES, Heyope Rectory, Knighton, Radnorshire.
1013 E. N. & H. C.—MRS. W. B. GOODK, Aldenburgh Lodge, Borethorpe, Yorks.
H. C.—1016, 1017. C.—1008, 1009, 1013.

Class 503.—Gold Campine Cocks or Cockerels. [11 entries.]

- 1026 I. (30s.) & 1027 III. (10s.)—THE REV. E. LEWIS JONES, Heyope Rectory, Knighton.
1028 II. (20s.)—MRS. W. E. P. BAYARD, Lyneham, Yealinton, Plymouth.
1029 E. N. & H. C.—RICHARD EDWARDS, Staunton Old Court, Pembridge.
H. C.—1024, 1027. C.—1029.

Class 504.—Gold Campine Hens or Pullets. [8 entries.]

- 1037 I. (30s.), 1032 III. (10s.) & 1036 E. N. & H. C.—THE REV. E. LEWIS JONES, Heyope Rectory, Knighton, Radnorshire.
1033 II. (20s.)—RICHARD EDWARDS, Staunton Old Court, Pembridge.
H. C.—1035. C.—1032.

Class 505.—Faverolle Cocks or Cockerels. [7 entries.]

- 1042 I. (30s.) & 1044 III. (10s.)—CHARLES THELLUSON, Brodsworth, Doncaster.
1038 II. (20s.)—MRS. WINSLOE, Dunsdale, Frodsham, Cheshire.
1038 E. N. & H. C.—EDWARD C. ASH, Dallingham Hall, Wickham Market, Suffolk.
H. C.—1040. C.—1041.

Class 506.—Faverolle Hens or Pullets. [7 entries.]

- 1048 I. (30s.) & 1051 II. (20s.)—CHARLES THELLUSON, Brodsworth, Doncaster.
1040 III. (10s.)—J. W. P. COUSSENS, Gootrey, near Holmes Chapel, Cheshire.
1047 E. N. & H. C.—MRS. E. A. LYCHT-GREEN, Darrington Hall, Pontefract.
H. C.—1050. C.—1049.

Class 507.—Houdan Cocks or Cockerels. [8 entries.]

- 1059 I. (30s.)—S. W. THOMAS, Glasfryn, Forest Fach, Swansea.
1056 II. (20s.)—MRS. C. SQUIRE, Glenwood, Morfecho, N. Devon.
1062 III. (10s.)—E. G. BEVAN, 1, Somerset Place, Mumbles, Glam.
1054 E. N. & H. C.—F. LAWFOED STONE, Woodcote, Crockham Hill, Edenbridge.
H. C.—1055. C.—1057, 1058.

Class 508.—Houdan Hens or Pullets. [6 entries.]

- 1065 I. (30s.) & 1062 II. (20s.)—S. W. THOMAS, Glasfryn, Forest Fach, Swansea.
1064 III. (10s.)—HENRY EDEY, South Biens, Heathfield, Sussex.
1063 E. N. & H. C.—J. W. MOORE, Ctaneshugh, Hexham-on-Tyne.
H. C.—1060. C.—1061.

Class 509.—Cocks or Cockerels, any other distinct variety except Bantams. [14 entries.]

- 1070 I. (30s.)—TOM H. FURNESS, Carlton House, Chesterfield, (Redcap.)
1068 II. (20s.)—CHARLES E. PICKLES, Kayfield House, Earby, Colne, Yorks. (Silver Hamburg.)

¹ Silver Medal given by the Maline Poultry Club for the best Maline in Classes 499 and 500.

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1111 I. (30s.)—MISS R. B. BABCOCK, Grange Hill Poultry Yards, Chigwell Row, (Ardurham).

1112 I. (30s.)—E. O.—S. W. THOMAS, Gladron Forest Fach, Swansen. (Crove.)
1077, 1071, 1072, 1073. C.—1074, 1075.

Class 510.—Hens or Pullets, any other distinct variety except Bantams.
[19 entries.]

1113 I. (30s.)—H. S. MARSDEN, Kempstone, Clitheroe.

1114 I. (30s.)—T. O. HEATH, Kead, Newcastle, Staffs.

1115 I. (30s.)—J. B. KERR, Harviestoun Castle, Dollar.

1116 I. (30s.)—CHARLES E. PICKLES, Kayfield House, Farby, Colne, Yorks.

1083, 1088, 1094, 1095, 1096, 1097. C.—1081, 1083, 1088.

Class 511.—Old English Game Bantam Cocks. [7 entries.]

1117 I. (30s.)—H. S. MARSDEN, Kempstone, Clitheroe.

1118 I. (30s.)—A. HENSHAW, Norman Road, Ripley, near Derby.

1119 I. (30s.)—H. O.—J. F. ENTWISLE, The Firs, Calder Grove, Wakefield.

1101. C.—1099.

Class 512.—Old English Game Bantam Hens. [9 entries.]

1120 I. (30s.)—J. F. ENTWISLE, The Firs, Calder Grove, Wakefield.

1121 I. (30s.)—H. S. MARSDEN, Kempstone, Clitheroe.

1122 I. (30s.)—H. W. VAUDIN, 27 Esplanade, Quersney.

1123 I. (30s.)—MISS R. B. BABCOCK, Grange Hill Poultry Yards, Chigwell Row.

1100. C.—1114.

Class 513.—Modern Game Bantam Cocks, any colour. [6 entries.]

1124 I. (30s.)—J. F. ENTWISLE, The Firs, Calder Grove, Wakefield.

1125 I. (30s.)—ALBERT SHARPE, Highbury, Brockwell Lane, Chatterfield.

1126 I. (30s.)—ARNOLD STUBBS, "Morningtide," Swanton Lane, Winsford.

1127 I. (30s.)—H. O.—J. BRENNAND, Baldersley Poultry Farm, Baldersley, S.O., Yorks.

1117. C.—1129.

Class 514.—Modern Game Bantam Hens, any colour. [7 entries.]

1128 I. (30s.)—J. F. ENTWISLE, The Firs, Calder Grove, Wakefield.

1129 I. (30s.)—MISS FREDA MOND, Combe Bank, near Savenook.

1130 I. (30s.)—ARNOLD STUBBS, "Morningtide," Swanton Lane, Winsford.

1131 I. (30s.)—H. O.—J. BRENNAND, Baldersley Poultry Farm, Baldersley, S.O., Yorks.

1126. C.—1123.

Class 515.—Sebright Bantam Cocks. [10 entries.]

1132 I. (30s.)—MISS K. D. PRESTON, Bay House, Ellil, Lancaster.

1133 I. (30s.) & 1132 E. N. & H. C.—THE REV. W. SERJEANTSON, Acton Burnell

Rectory, Shrewsbury.

1134 I. (30s.)—J. F. ENTWISLE, The Firs, Calder Grove, Wakefield.

1131. C.—1133.

Class 516.—Sebright Bantam Hens. [11 entries.]

1140 I. (30s.) & 1143 I. (30s.) & 1142 E. N. & H. C.—THE REV. W. SERJEANTSON, Acton

Burnell Rectory, Shrewsbury.

1141 I. (30s.)—A. R. FISH, Holme Mead, Hutton, Preston.

1140. C.—1143.

Class 517.—Scotch Grey Bantam Cocks or Chickens. [12 entries.]

1150 I. (30s.)—R. FLETCHER HEARNshaw, Fox Hill, Burton Joyce, Nottingham.

1151 I. (30s.)—JAMES MCCRAE, 13 Thomson Street, Kilmarnock.

1152 I. (30s.)—G. H. BLACK, Gunthorpe, Notts.

1149 E. N. & H. C.—DR. R. C. ALLEN, Riversdale, Belper.

1150. C.—1153.

Class 518.—Scotch Grey Bantam Hens or Pullets. [16 entries.]

1171 I. (30s.)—JAMES MCCRAE, 13 Thomson Street, Kilmarnock.

1161 I. (30s.)—DR. R. C. ALLEN, Riversdale, Belper.

1164 I. (30s.)—RAWSON & CURZON, Fritchley, Ambergate, Derbyshire.

1169 E. N. & H. C.—R. FLETCHER HEARNshaw, Fox Hill, Burton Joyce, Nottingham.

1168. C.—1163.

Class 519.—Wyandotte Bantam Cocks. [6 entries.]

1178 I. (30s.) & 1182 I. (30s.)—J. F. ENTWISLE, The Firs, Calder Grove, Wakefield.

1181 I. (30s.)—R. S. MARSDEN, Kempstone, Clitheroe.

1177 E. N. & H. C.—RAWSON & CURZON, Fritchley, Ambergate, Derbyshire.

1180. C.—1180.

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Class 520.—Wyandotte Bantam Hens. [5 entries.]

- 1187 I. (30s.)—R. S. MARSDEN, Kempstone, Clitheroe.
- 1188 II. (20s.)—J. F. ENTWISLE, The Firs, Calder Grove, Wakefield.
- 1184 III. (10s.)—RAWSON & CURZON, Fritchley, Amburgate, Derbyshire.
- 1186 R. N. & H. C.—B. J. ISON, Oakfield, Ashby-de-la-Zouch.

Class 521.—Yokohama Bantam Cocks or Cockerels. [5 entries.]

- 1192 I. (30s. & Champion), & 1189 II. (20s.)—F. J. S. CHATTERTON, "Nithsdale," 34 Elm Park Road, Finchley, N.
- 1188 III. (10s.) & 1190 R. N. & H. C.—ERNEST BROWN, Langborough, Wokingham, Berks.
- H. C.—1191, 1193.

Class 522.—Yokohama Bantam Hens or Pullets. [5 entries.]

- 1199 I. (30s. & R. N. for Champion), & 1196 R. N. & H. C.—F. J. S. CHATTERTON, "Nithsdale," 34 Elm Park Road, Finchley, N.
- 1194 II. (20s.)—ERNEST BROWN, Langborough, Wokingham, Berks.
- 1195 III. (10s.)—R. SCOTT MILLER, Greenock Hill, Broomhouse, near Glasgow.
- H. C.—1197, 1198.

Class 523.—Japanese Bantam Cocks or Cockerels. [11 entries.]

- 1200 I. (30s. & Champion),—MAJOR G. T. WILLIAMS, Manor House, Burton Joyce, Nottingham.
- 1202 II. (20s.)—J. F. ENTWISLE, The Firs, Calder Grove, Wakefield.
- 1204 III. (10s.)—ABROR BROTHERS, Thurston, Norfolk.
- 1207 R. N. & H. C.—ALFRED E. W. DAKIN, Adcock, Shrewsbury.
- H. C.—1206.

Class 524.—Japanese Bantam Hens or Pullets. [5 entries.]

- 1214 I. (30s. & R. N. for Champion),—J. F. ENTWISLE, Calder Grove, Wakefield.
- 1219 II. (20s.) & 1216 III. (10s.)—ALFRED E. W. DAKIN, Adcock, Shrewsbury.
- 1213 R. N. & H. C.—MAJOR G. T. WILLIAMS, Manor House, Burton Joyce, Nottingham.
- H. C.—1218.

Class 525.—Bantam Cocks, any other variety. [15 entries.]

- 1229 I. (30s.)—CHARLES THELUSSON, Brodsworth Poultry Farm, Doncaster.
- 1224 II. (20s.)—A. HENSHAW, Norrinn Road, Ripley, near Derby.
- 1231 III. (10s.)—ROBERT S. WILLIAMSON, The Grange, Hednesford.
- 1230 R. N. & H. C.—MRS RIGBY, Over Hall, Winsford.
- H. C.—1225.

Class 526.—Bantam Hens, any other variety. [16 entries.]

- 1235 I. (30s.) & 1240 II. (20s.)—J. F. ENTWISLE, The Firs, Calder Grove, Wakefield.
- 1247 III. (10s.)—CHARLES THELUSSON, Brodsworth Poultry Farm, Doncaster.
- 1249 R. N. & H. C.—MAJOR G. T. WILLIAMS, Manor House, Burton Joyce, Nottingham.
- H. C.—1238.

Class 527.—Aylesbury Drakes or Ducks, bred prior to 1914.

[4 entries.]

- 1253 I. (30s.)—JAMES HUNTLY & SON, Hirsel Poultry Farm, Coldstream, Berwickshire.
- 1251 II. (20s.)—WILLIAM BYGOTT, Wing, Oakham, Rutland.
- 1254 III. (10s.)—MRS. W. HOWARD PALMER, Murrell Hill, Binfield, Berks.
- 1252 R. N. & H. C.—THE REV. J. HEWETSON, Beoley Vicarage, Rowsley, Derbyshire.

Class 528.—Aylesbury Drakes or Ducks, bred in 1914. [4 entries.]

- 1257 I. (30s.)—THE REV. J. HEWETSON, Beoley Vicarage, Rowsley, Derbyshire.
- 1255 II. (20s.)—WILLIAM BYGOTT, Wing, Oakham, Rutland.
- 1256 III. (10s.) & 1258 R. N. & H. C.—JAMES LONGSON & SONS, Buxton Road, Chapel-cum-Frith.

Class 529.—Rouen Drakes or Ducks, bred prior to 1914. [4 entries.]

- 1259 I. (30s.)—WILLIAM BYGOTT, Wing, Oakham, Rutland.
- 1260 II. (20s.)—BRYNDAID, Baldersley Poultry Farm, Baldersley, S.O., Yorks.
- 1261 III. (10s.)—JAMES HUNTLY & SON, Hirsel Poultry Farm, Coldstream, Berwickshire.
- 1262 R. N. & H. C.—FRED W. MYHILL, The Red House, Hethel, Norwich.

Class 530.—Rouen Drakes or Ducks, bred in 1914. [7 entries.]

- 1264 I. (30s.) & 1269 III. (10s.)—FRED W. MYHILL, The Red House, Hethel, Norwich.
- 1263 II. (20s.)—WILLIAM BYGOTT, Wing, Oakham, Rutland.
- 1266 R. N. & H. C.—HENRY BICKFORD, Stamford, Four Ashes, Wolverhampton.
- H. C.—1265.

A Silver Medal given by the Yokohama Club for the best Yokohama Bantam in

Classes 521 and 522.

A Special Prize given by the Japanese Bantam Association for the best Japanese

Bantam in Classes 523 and 524.

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Class 531.—*Blue Orpington Drakes or Ducks, bred prior to 1914.* [5 entries.]

- 1270 I. (30a).—MISS E. GLADYS ALLIN, Woodston, Loddiswell, South Devon.
- 1271 II. (30b).—MRS. W. E. P. BASTARD, Lynchem, Yealmington, Plymouth.
- 1272 III. (10a).—ABBOT BROTHERS, Thuxton, Norfolk.
- 1273 E. N. & H. C.—TOM H. FURNESS, Carlton House, Chesterfield.

Class 532.—*Blue Orpington Drakes or Ducks, bred in 1914.* [4 entries.]

- 1275 I. (30a).—E. N. & H. C.—MRS. W. E. P. BASTARD, Lynchem, Yealmington.
- 1276 II. (30b).—MISS E. GLADYS ALLIN, Woodston, Loddiswell, South Devon.
- 1277 III. (10a).—A. JUKES, Charteridge, Chesham, Bucks.

Class 533.—*Buff Orpington Drakes or Ducks, bred prior to 1914.* [5 entries.]

- 1278 I. (30a) & Champion.—(JAMES HUNTLY & SON, Hursel Poultry Farm, Coldstream, Scotland.)
- 1279 II. (30b).—WILLIAM G. KINGWELL, Dartmoor Poultry Farm, South Brent.
- 1280 III. (10a).—J. N. JACKMAN, Breton, Devonshire.
- 1281 E. N. & H. C.—LORD HARLECH, Glyn, Talsarnau, North Wales.

Class 534.—*Buff Orpington Drakes or Ducks, bred in 1914.* [6 entries.]

- 1285 I. (30a) & E. N. & H. C. for Champion.—TOM H. FURNESS, Carlton House, Chesterfield.
- 1286 II. (30b).—JAMES HUNTLY & SON, Hursel Poultry Farm, Coldstream, Berwickshire.
- 1287 III. (10a).—WILLIAM G. KINGWELL, Dartmoor Poultry Farm, South Brent.
- 1288 E. N. & H. C.—A. E. BROWN, Staplehurst Poultry Farm, Staplehurst, Kent.

Class 535.—*Drakes or Ducks, any other breed, bred prior to 1914.* [16 entries.]

- 1292 I. (30a) & 1300 III. (10a).—WILLIAM G. KINGWELL, Dartmoor Poultry Farm, South Brent, South Devon. (Indian Runners.)
- 1301 II. (30b).—SIDNEY W. LEWIS, Nowell House, Stockfield, N.O. (Indian Runner.)
- 1305 E. N. & H. C.—ABBOT BROTHERS, Thuxton, Norfolk. (Indian Runner.)
- E. C.—1290, 1291, 1293, 1296, 1297, 1299, 1302, 1304. C.—1303, 1306, 1308, 1310.

Class 536.—*Drakes or Ducks, any other breed, bred in 1914.* [5 entries.]

- 1307 I. (30a) & 1309 III. (10a).—LADY HARLECH, Brognynn, Oswestry. (White Indian Runners.)
- 1308 II. (30b). & 1310 E. N. & H. C.—WILLIAM G. KINGWELL, Dartmoor Poultry Farm, South Brent, South Devon. (Indian Runners.)

Class 537.—*Emden Ganders.* [5 entries.]

- 1315 I. (30a).—A. H. FOX-BROCKBANK, The Croft, Kirsanton, Cumberland.
- 1316 II. (30b).—WILLIAM BYGOTT, Wing, Oakham, Rutland.
- 1317 III. (10a).—ABBOT BROTHERS, Thuxton, Norfolk.
- 1318 E. N. & H. C.—LORD HARLECH, Glyn, Talsarnau, North Wales.
- E. C.—1312.

Class 538.—*Emden Geese.* [5 entries.]

- 1320 I. (30a).—ABBOT BROTHERS, Thuxton, Norfolk.
- 1319 II. (30b).—WILLIAM BYGOTT, Wing, Oakham, Rutland.
- 1317 III. (10a).—LADY HARLECH, Brognynn, Oswestry.
- 1318 E. N. & H. C.—A. H. FOX-BROCKBANK, The Croft, Kirsanton, Cumberland.
- E. C.—1319.

Class 539.—*Toulouse Ganders.* [6 entries.]

- 1322 I. (30a).—BARNES BROTHERS, Lancashire Poultry Farm, Wiltshire, nr. Blackburn.
- 1321 II. (30b).—ABBOT BROTHERS, Thuxton, Norfolk.
- 1326 III. (10a).—MRS. W. HOWARD PALMER, Murrell Hill, Banfield, Berks.
- 1328 E. N. & H. C.—JAMES KNOTT, Close House Home Farm, Wylan, Northumberland.
- E. C.—1323, 1324.

Class 540.—*Toulouse Geese.* [5 entries.]

- 1329 I. (30a).—WILLIAM BYGOTT, Wing, Oakham, Rutland.
- 1330 II. (30b).—HENRY BUCKLEY, Stadeland, Four Ashes, Wolverhampton.
- 1327 III. (10a).—ABBOT BROTHERS, Thuxton, Norfolk.
- 1328 E. N. & H. C.—BARNES BROTHERS, Lancashire Poultry Farm, Wiltshire.
- E. C.—1331.

¹ Special Prize of 10s. 6d. given by the Buff Orpington Duck Club for the best Buff Orpington Drake or Duck in Classes 533 and 534.

CXXXIV *Award of Prizes at Shrewsbury, 1914.*

Class 541.—*White Turkey Cocks or Cockpals.* [12 entries.]

- 1341 I. (30s.)—LADY EDWARD SOMERSET, Hambrook House, Charlton Kings, Glos.
- 1335 II. (20s.)—J. CARLTON HUNTING, Great Missenden, Bucks.
- 1334 III. (10s.)—LADY HARLEIGH, Brogyntyn, Oswestry.
- 1342 R. N. & H. C.—MRS. J. G. WILLIAMS, Pendley Manor, Tring.
- H. C.—1332, 1333, 1337.

Class 542.—*White Turkey Hens or Pullets.* [18 entries.]

- 1344 I. (30s.)—MRS. SIBELL M. CORRETT, Stableford, Bridgnorth.
- 1348 II. (20s.)—MRS. W. F. INGE, Thorpe, Tamworth.
- 1346 III. (10s.)—LADY HARLEIGH, Brogyntyn, Oswestry.
- 1350 R. N. & H. C.—MRS. J. G. WILLIAMS, Pendley Manor, Tring.
- H. C.—1346, 1350, 1353, 1356.

Class 543.—*Turkey Cocks, any other variety.* [11 entries.]

- 1354 I. (30s.)—MURRAY LINDNER, Ham Court Poultry Farm, Charlton Kings, Glos.
- 1357 II. (20s.)—ABBOT BROTHERS, Thuxton, Norfolk.
- 1353 III. (10s.)—B. BUTLAND, Colebrook Poultry Farm, South Devon.
- 1360 R. N. & H. C.—LORD ROTHSCHILD, Tring Park, Herts.
- H. C.—1367, 1369, 1381, 1398.

Class 544.—*Turkey Hens, any other variety.* [16 entries.]

- 1375 I. (30s.)—ABBOT BROTHERS, Thuxton, Norfolk.
- 1370 II. (20s.)—WILLIAM JOHNSON, Roshbury, Church Stretton.
- 1368 III. (10s.)—J. H. FOWLER, Bignall Farm, Great Missenden, Bucks.
- 1371 R. N. & H. C.—EDWARD KENDRICK, Woodford House, Lichfield.
- H. C.—1372. C.—1369.

FARM AND DAIRY PRODUCE OF THE UNITED KINGDOM.

Butter.

Class 545.—*Two Pounds of Fresh Butter, without any salt, made up in plain pounds, from the milk of Channel Island, Devon, or South Devon Cattle and their crosses.* [24 entries.]

- 13 I. (4s.)—MRS. L. R. MILDON, Higher Mead Down, Rackenford, North Devon.
- 32 II. (2s.)—MRS. JOHN WAY, West Bridge, Bishopscynmpton, South Molton, Devon.
- 10 III. (1s.)—MISS LILIAN M. HITCHCOCKS, Fern Cottage, Berkswell, near Coventry.
- 6 R. N. & H. C.—MRS. FAUDEL PHILLIPS, Mapleton Stud, Edenbridge, Kent.
- H. C.—1, 2, 14, 23. C.—22.

Class 546.—*Two Pounds of Fresh Butter, without any salt, made up in plain pounds, from the milk of Cattle of any breed or cross other than those mentioned in Class 545.* [25 entries.]

- 40 I. (4s.)—MRS. J. M. PARRY, Severn Arms Hotel, Penybont, Radnorshire.
- 49 II. (2s.)—FRANK WHITEHOUSE, The College Farm, Six Ashes, Bridgnorth.
- 37 III. (1s.)—MRS. OXENHAM, Burntown, Tavistock.
- 31 R. N. & H. C.—MRS. S. IRVING, Toppin Castle, Heads Nook, Carlisle.
- H. C.—41. C.—20, 34, 38.

Class 547.—*Two Pounds of Fresh Butter, slightly salted, made up in plain pounds, from the milk of Channel Island, Devon, or South Devon Cattle and their crosses.* [27 entries.]

- 75 I. (4s.)—MRS. JOHN WAY, West Bridge, Bishopscynmpton, South Molton, Devon.
- 63 II. (2s.)—MRS. J. M. MARTIN, Lansenwith, Stythians, Cornwall.
- 64 III. (1s.)—MRS. L. R. MILDON, Higher Mead Down, Rackenford, North Devon.
- 72 R. N. & H. C.—ARTHUR F. SOMERVILLE, Dinder House, Wells, Somerset.
- H. C.—51, 69. C.—51, 54, 99, 76.

Class 548.—*Two Pounds of Fresh Butter, slightly salted, made up in plain pounds, from the milk of Cattle of any breed or cross other than those mentioned in Class 547.* [42 entries.]

- 103 I. (4s.)—MRS. J. M. PARRY, Severn Arms Hotel, Penybont, Radnorshire.
- 106 II. (2s.)—MRS. J. RIDGEWAY, Church Street, Malpas, Cheshire.
- 117 III. (1s.)—FRANK WHITEHOUSE, The College Farm, Six Ashes, Bridgnorth.
- 78 R. N. & H. C.—MRS. JUSTICE BANKS, Soughton Hall, Northop, Kent.
- H. C.—106, 110, 116. C.—51, 58, 81, 191.

Award of Prizes at Shrewsbury, 1914. CXXXV

- Class 551.—Three Pounds of Fresh Butter, slightly salted, made up in pounds in the most attractive marketable designs. [21 entries.]**
- 171 I. (41.)—MR. L. R. MILDON, Higher Mead Down, Rackenford, North Devon.
 172 II. (42.)—MR. JOHN WAY, West Bridge, Bishopscynmpton, South Molton, Devon.
 173 III. (43.)—MRS. UNDERWOOD, Wards Coombe, Little Gaddesden, Berkhamsted.
 174 R. N. & H. C.—W. J. JEFFERIES, Burlington, Shifnal, Salop.
 H. O.—130.

- Class 552.—Three Pounds of Fresh Butter, slightly salted, made up in pounds, packed in non-returnable boxes for transmission by rail or parcel. [15 entries.]**
- 175 I. (44.)—MR. L. R. MILDON, Higher Mead Down, Rackenford, North Devon.
 176 II. (45.)—MR. JOHN WAY, West Bridge, Bishopscynmpton, South Molton, Devon.
 177 III. (46.)—STUART HUTT, Wheatfield, Tetworth, Oxon.
 178 R. N. & H. C.—MISS SYBIL M. CORBETT, Stableford, Bridgnorth.
 H. O.—147.

Cheese.

Made in 1914.

- Class 551.—Three Cheddar Cheeses, of not less than 50 lb. each. [15 entries.]**

- 184 I. (47.)—W. C. SPENCER, Manor Farm, Highfield, Cattistock, Dorset.
 185 II. (48.)—W. BARBON, Caigton Dairy, Castle Douglas.
 186 III. (49.)—JOSEPH BURFITT, Goodedge Farm, North Brewham, Bruton, Somerset.
 187 R. N. & H. C.—FRANK PORTCH, Whitcombe, Corton Denham, Sherborne, Dorset.
 H. O.—163.

- Class 552.—Three Cheddar Truckles. [19 entries.]**
- 188 I. (50.)—W. C. SPENCER, Manor Farm, Highfield, Cattistock, Dorset.
 189 II. (51.)—WILLIAM BARBON, Caigton Dairy, Castle Douglas.
 190 III. (52.)—ROBERT STEVENSON, Boyhead, Galston, Ayrshire.
 191 R. N. & H. C.—FRANK PORTCH, Whitcombe, Corton Denham, Sherborne, Dorset.
 H. O.—174.

- Class 553.—Three Coloured Cheshire Cheeses, of not less than 40 lb. each. [79 entries.]**

- 201 I. (53.)—ROWIN OCKSON, Poulton, Pulford, Chester.
 202 II. (54.)—JOHN HOBSON, Moreton Corbet, Shrewsbury.
 203 III. (55.)—ROBERT PARKER, Church Farm, Preston Gubbolds, near Shrewsbury.
 204 R. N. & H. C.—H. S. WALLEY, Bickerton Hall, Malpas, Cheshire.
 H. O.—226, 227, 243, 245, 247.

- Class 554.—Three Uncoloured Cheshire Cheeses, of not less than 40 lb. each. [63 entries.]**

- 313 I. (56.)—MRS. S. A. MOULTON, Knightley, near Eccleshall, Staffs.
 206 II. (57.)—JOHN HOBSON, Moreton Corbet, Shrewsbury.
 208 III. (58.)—FREDERICK CHIDLOW, Shawbury Park Farm, Shrewsbury.
 209 R. N. & H. C.—GEORGE GRIFFITHS, Penmore Manor, Baschurch, Salop.
 H. O.—271, 278, 280, 301, 303.

- Class 555.—Three Double Gloucester Cheeses, of not less than 22 lb. each. [9 entries.]**

- 340 I. (59.)—A. STONE & SON, Hurlingham, Douling, Shepton Mallet.
 337 II. (60.)—H. H. PICKFORD, Westlands Farm, Molksham, Wilts.
 335 III. (61.)—ROBERT J. HAINE, Tower Farm, Little Wolford, Snipston-on-Stour.
 334 R. N. & H. C.—O. A. GOODWIN, Aston Hill Farm, Stowe, Staffs.
 H. O.—332.

- Class 556.—Three Staffordshire or Derbyshire Cheeses. [6 entries.]**
- 343 I. (62.)—MAYFIELD DAIRY ASSOCIATION (Derbyshire), Ashbourne, near Derby.
 344 II. (63.)—PLATT & SWAIN (Derbyshire), Bellevue Dairy, Wem, Salop.
 342 III. (64.)—O. A. GOODWIN (Staffordshire), Aston Hill Farm, Stowe, Staffs.
 346 R. N. & H. C.—YOXALL AND DISTRICT CO-OPERATIVE DAIRY SOCIETY, LTD. (Derbyshire), Yoxall, Burton-on-Trent.

- Class 557.—Three Stilton Cheeses. [9 entries.]**
- 349 I. (65.)—MRS. CHARLOTTE FAIRBROTHER, Beeby, near Leicester.
 350 II. (66.)—WILLIAM JACKSON, Frisby House, Billesden, Leicester.
 348 III. (67.)—TUXFORD & NEPHEWS, Thorpe End Dairy, Melton Mowbray.
 352 R. N. & H. C.—HENRY MORRIS, Manor Farm, Saxelbye, Melton Mowbray.
 H. O.—361.

- Class 558.—Three Wensleydale Cheeses, Sifton Shape.** [4 entries.]
 557 I. (41.)—ALFRED BRYNTERE, The Dairy, Coverham, Middlesham, Yorks.
 558 II. (42.)—BALLARD BROTHERS, Brockhams, Wem, Salop.
 559 R. N. & H. C.—WENSLEYDALE PURE MILK SOCIETY, LTD., The Dairy, North

- Class 559.—Three Caerphilly Cheeses.** [10 entries.]
 560 I. (41.)—EDWARD DIBBLE, Brean, Burnham, Somerset.
 561 II. (42.)—WELLS UNITED DAIRIES, LTD., Wells, Somerset.
 562 III. (41.)—MISS NANNY HAYLES, Tynybedd, Nantgaredig, Carmarthenshire.
 563 R. N. & H. C.—MISS HETTY THOMAS, Penybedd, Pembrey, South Wales.

Bacon and Hams.

- Class 560.—Two Sides of Bacon, pale dried, Wiltshire shape, with 1 attached.** [4 entries.]

- 572 I. (43.)—JAMES H. ISMAY, Iwerne Minster, Blandford, Dorset.
 573 II. (42.)—PALETHORPES, LTD., Dudley Port, Staffs.
 574 III. (41.)—HERTS. & BEDS. BACON FACTORY, Nightingale Road, Hitchin.

- Class 561.—Two Sides of Bacon, smoke-dried, Wiltshire shape, with 1 attached.** [3 entries.]

- 575 I. (43.)—JAMES H. ISMAY, Iwerne Minster, Blandford, Dorset.
 576 II. (42.)—HERTS. & BEDS. BACON FACTORY, LTD., Nightingale Road, Hitchin.
 577 III. (41.)—PALETHORPES, LTD., Dudley Port, Staffs.

- Class 562.—Two Sides of Bacon, pale dried, Wiltshire shape, Hamless.** [6 entries.]

- 578 I. (43.)—F. R. MARSHALL, Dore, near Sheffield.
 579 II. (42.)—GEORGE GARBUTT, Ingleby Barwick, Thosaby to, York.
 580 III. (41.)—HERTS. & BEDS. BACON FACTORY, LTD., Nightingale Road, Hitchin.

- Class 563.—Two Sides of Bacon, smoke dried, Wiltshire shape, Hamless.** [3 entries.]

- 582 I. (43.)—HERTS. & BEDS. BACON FACTORY, LTD., Nightingale Road, Hitchin.
 583 II. (42.)—JAMES H. ISMAY, Iwerne Minster, Blandford, Dorset.
 584 III. (41.)—PALETHORPES, LTD., Dudley Port, Staffs.

- Class 564.—Two Hams, pale dried, not exceeding 14 lb. weight.** [7 entries.]

- 588 I. (43.)—JOHN JOHNSON, Fern Leigh, Brickkiln Lane, Banks, near Southport.
 589 II. (42.)—F. R. MARSHALL, Dore, near Sheffield.
 590 III. (41.)—PALETHORPES, LTD., Dudley Port, Staffs.

- Class 565.—Two Hams, smoke dried, not exceeding 14 lb. weight.** [3 entries.]

- 592 I. (43.)—JAMES H. ISMAY, Iwerne Minster, Blandford, Dorset.
 593 II. (42.)—PALETHORPES, LTD., Dudley Port, Staffs.

- Class 566.—Two Hams, pale dried, exceeding 14 lb. weight.** [7 entries.]

- 401 I. (43.)—PALETHORPES, LTD., Dudley Port, Staffs.
 396 II. (42.)—SIR GILBERT GREENALL, BT., C.V.O., Walton Hall, Warrington.
 398 III. (41.)—JOHN JOHNSON, Fern Leigh, Brickkiln Lane, Banks, near Southport.

- Class 567.—Two Hams, smoke dried, exceeding 14 lb. weight.** [3 entries.]

- 404 I. (43.)—PALETHORPES, LTD., Dudley Port, Staffs.
 405 II. (42.)—JAMES H. ISMAY, Iwerne Minster, Blandford, Dorset.
 406 III. (41.)—VISCOUNTS CASTLEBRAGH, Springfield, Oakham.

Cider and Perry.

N.B.—The names of the Fruits from which the Cider or Perry is stated by the Exhibitor to have been made are added after the address of the Exhibitor. In Classes 570, 573, 574, and 575 the date of making is also given.

- Class 568.—Casks of Dry Cider, of not less than 9, and not more than 18 gallons, made in 1913.** [14 entries.]

- 411 I. (43.)—PULLIN BROS., Compton Greenfield, near Bristol. (Mixed Fruit.)
 415 II. (42.)—THOMAS STONE, Axe Vale Cider Works, Axminster. (Mixed Fruit.)
 418 III. (41.)—TILLEY BROS., Shepton Mallet, Somerset. (Horner, Cap of Liberty, French Jersey.)
 417 R. N. & H. C.—TILLEY BROS. (Dove, Kingston Black, Red and Chisel Jerseys.)
 C.—408, 409.

Award of Prizes at Shrewsbury, 1914. cxxxvii

- 569. Casks of Sweet Cider, of not less than 9, and not more than 18 gallons, made in 1913.** [21 entries.]
- I. (21.)—HERBERT J. DAVIS, Goldstone House, Sutton Mounts, Sparkford, Somerset. (Corton Pippin, Dove, Royal Jersey, Kingston Black.)
- II. (22.)—HERBERT J. DAVIS. (Burlington Mill, White and Ghisel Jersey, and Kingston Black.)
- III. (23.)—HERBERT J. DAVIS. (Royal and White Jersey, Harry Masters, and Cap King Cherry.)
- R. N. & H. C.—W. H. BATING, St. Giles, near Exeter. (Sweet Alfred, Hang Down, Black and Cordle.)
- 570. Casks of Cider, of not less than 9, and not more than 18 gallons, made previous to 1913.** [10 entries.]
- I. (24.)—THOMAS STONE, Axe Vale Cider Works, Axminster. (Mixed Fruit, 1911.)
- II. (25.)—TILLEY BROS., Shepton Mallet, Somerset. (Horner, Red and White Jersey, 1912.)
- Class 571.—One Dozen Bottles of Dry Cider, made in 1913.** [16 entries.]
- I. (26.)—VICKERY BROS., West Somerset Cider Works, Taunton. (Mixed Fruit.)
- II. (27.)—EXHIB. OF SIR JOHN HEATHCOTE AMORY, BT., Knights Hayes Court, Tiverton, Devon. (Mixed Fruit.)
- III. (28.)—THOMAS STONE, Axe Vale Cider Works, Axminster. (Mixed Fruit.)
- R. N. & H. C.—RIDLER & SON, Clehonger Manor, Hereford. (Mixed Fruit.)
- H. C.—487, 488.
- Class 572.—One Dozen Bottles of Sweet Cider, made in 1913.** [33 entries.]
- 474 I. (29.) & Champion.—CAPT. F. W. CRAWSHAY, Hempnall Cider Factory, Hempnall, Norwich. (Kingston Black.)
- 475 II. (30.) & R. N. for Champion.—CAPT. F. W. CRAWSHAY. (Kingston Black and others.)
- 488 III. (31.) & 488 R. N. & H. C.—EXHIB. OF SIR JOHN HEATHCOTE AMORY, BT., Knights Hayes Court, Tiverton, Devon. (Mixed Fruit.)
- H. C.—487, 478, 479, 480, 485, 486, 488. C.—473, 472, 477, 484, 487, 482, 493, 497.
- Class 573.—One Dozen Bottles of Cider, made previous to 1913.** [13 entries.]
- 504 I. (32.)—RIDLER & SON, Clehonger Manor, Hereford. (Mixed Fruit, 1912.)
- 506 II. (33.)—RIDLER & SON. (Kingston Black 1912.)
- 500 III. (34.)—JOHN BAZLEY, The Bury, Stoke Prior, Leominster. (Fox Whelp and Hiltarley, 1912.)
- 511 R. N. & H. C.—PHILIP WILLCOX, Nupdown Farm, Thornbury, Glos. (Kingston Black, 1912.)
- C.—508.
- Class 574.—One Dozen Bottles of Dry Perry.** [1 entries.]
- 514 II. (35.)—RIDLER & SON, Clehonger Manor, Hereford. (Holmer, 1912.)
- Class 575.—One Dozen Bottles of Sweet Perry.** [7 entries.]
- 520 I. (36.)—HENRY ROBBINS & SON, Ebbley Stroud, Glos. (Butt, 1913.)
- 518 II. (37.)—HENRY MASON, Withington, Hereford. (Taynton Squash and Barland, 1911.)
- 519 III. (38.)—RIDLER & SON, Clehonger Manor, Hereford. (Taynton Squash, 1912.)
- 517 R. N. & H. C.—HENRY MASON. (Taynton Squash, 1911.)

Bottled Fruit.

- Class 576.—Three Varieties of Fruit Bottled in Syrup, selected from Red or Yellow Plums, Greengages, Pears, Cherries and Raspberries.** [8 entries.]
- 526 I. (39a.)—MRS. M. E. PARLOUR, Croft, Darlington.
- 524 II. (39b.)—MISS ELSIE G. COOK, Ashford House, Ashford, Middlesex.
- 529 III. (39c.)—MISS WICK, 14 Hardcastle Street, Peckham, S.E.
- 528 R. N. & H. C.—GEORGE W. WEATHERILL, Belmont, Stoke-leys, Yorks.
- H. C.—525. C.—523.
- Class 577.—Six Varieties of Fruit, bottled in water, selected from Red Plums, Yellow Plums, Victoria Plums, Greengages, Pears, Apricots, Damsons and Cherries.** [4 entries.]
- 531 I. (40.)—MRS. V. BANES, 102 Park Street, Grosvenor Square, London.
- 532 II. (41.)—MRS. M. E. PARLOUR, Croft, Darlington.
- 534 III. (42.)—GEORGE W. WEATHERILL, Belmont, Stoke-leys, Yorks.

¹ Challenge Cup given by the Cider Growers of the West of England for the best exhibit of Cider in Classes 568-575.

LXXVII. Award of Prizes at Shrewsbury, 1914.

Class 576.—*Five Varieties of Soft Fruit, bottled in water, selected from Gooseberries, Raspberries, Loganberries, Blackberries, Black Currants, and Currants, Raspberries and Red Currants mixed.* [4 entries.]

585 I. (41).—MRS. V. BANNER, 102 Park Street, Grosvenor Square, London.

586 II. (42).—EDWARD WILKIN, Dalton-on-Tees, Darlington.

587 III. (43).—EDWARD BROTHERS, Rossmoreford, Aylesbury, Essex.

Class 577.—*Five Varieties of Fruit, bottled in water, selected from Red or Victoria Plums, Yellow Plums, Pears, Greening, Damsons, and Cherries.* [5 entries.]

588 I. (44).—D. S. TOWER, The Hill Fruit Farm, Pershore, Worcs.

589 II. (45).—MISS WICK, 14 Hardcastle Street, Pockham, S.E.

590 III. (46).—MRS. J. H. O. FEGAN, New Bridge House, Upwell, Wisbech.

591 E. N. & H. C.—E. C. DYSON, 9 Llandover Terrace, Bramley, Leeds.

592 E. N. & H. C.—544.

Class 578.—*Three Varieties of Soft Fruit, bottled in water, selected from Gooseberries, Raspberries, Black Currants, Loganberries, Blackberries, Raspberries and Red Currants mixed.* [8 entries.]

590 I. (30).—GEORGE W. WEATHERILL, Belmont, Stoke Newington, York.

591 II. (31).—MRS. M. E. PARLOUR, Croft, Darlington.

592 III. (32).—MISS WICK, 14 Hardcastle Street, Pockham, S.E.

593 E. N. & H. C.—544.

WOOL

Of 1914 Crop

Class 581.—*Three Fleeces of Oxford Down Wool.* [4 entries.]

590 I. (42).—CHARLES WILLIAMS, Manor House, Little Rollright, Chipping Norton, (Yearling Ewes.)

591 II. (43).—ROBERT W. HOBBS & SONS, Kelmscott Lechlade, (Old Ewes.)

592 III. (44).—HUGH W. STILGOE, The Grounds, Adderbury, near Banbury, (Ewes.)

593 E. N. & H. C.—CHARLES WILLIAMS. (Two-year-old Ewes.)

Class 582.—*Three Fleeces of Shropshire Wool.* [10 entries.]

593 I. (41).—KENNETH W. MILNES, Stanway Manor, Church Parson, Salop. (Yearling Ewes.)

594 II. (42).—R. F. M. NEVETT, Yorton, Harmer Hill, Salop. (Yearling Ewes.)

595 III. (43).—WALTER POWELL, Llwyngwllim, Clyro, Radnorshire, (Yearling Ewes.)

596 E. N. & H. C.—WALTER POWELL. (Yearling Wethers.)

Class 583.—*Three Fleeces of Southdown Wool.* [12 entries.]

597 I. (42).—C. H. LLOYD EDWARDS, Nanhoron, Pwllheli, (Yearling Ewes.)

598 II. (43).—SIR JEREMIAH COLMAN, BT., Gatton Park, Surrey, (Ewe Rams.)

599 III. (44).—THE EARL OF SUFFOLK AND BERKSHIRE, Charlton Park, Malmesbury, (Ewes.)

599 E. N. & H. C.—THE EARL OF SUFFOLK AND BERKSHIRE. (Yearling Ewes.)

Class 584.—*Three Fleeces of Hampshire Down Wool.* [2 entries.]

583 I. (41).—DONALD NICOLL, Burntwood, Martyr Worthy, Winchester, (Yearling Ewes.)

Class 585.—*Three Fleeces of Ryeland Wool.* [6 entries.]

595 I. (43).—HUGH A. CHRISTY, Llangoed Castle, Llyswen R.S.O., Breconshire, (Yearling Ewes.)

596 II. (42).—MRS. HERBERT, Clytha Park, Abergavenny, (Yearling Ewes.)

597 III. (43).—HUGH A. CHRISTY, (Ewes.)

598 E. N. & H. C.—DAVID J. THOMAS, Talschddu, Brecon, (Ewes.)

Class 586.—*Three Fleeces of Leicester Wool.* [5 entries.]

591 I. (43).—GEORGE HARRISON, Gainford Hall, Darlington, (Yearling Ewes.)

592 II. (42).—JOHN W. HARRISON, Underpark, Lealholm, Gosmont, York, (Yearling Ewes.)

593 III. (43).—GEORGE HARRISON, (Yearling Rams.)

594 E. N. & H. C.—WILLIAM HASLOP, West Side, Staindrop, Darlington, (Yearling Ewes.)

Class 587.—*Three Fleeces of Border Leicester Wool.* [2 entries.]

593 I. (43).—ROBERT GRAHAM, Auchengassel, Twynholm, N.B. (Yearling Ewes.)

594 II. (42).—TOM LEATHES, Wern Fawr, Ruthin, (Yearling Ewes.)

The Second and Third Prizes in Classes 581-593 were given by the respective Flock Book Societies.

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- Class 588.—Three Fleeces of Wensleydale Blue-faced Wool.** [7 entries.]
 588 I. (43.)—**LORD HENRY BENTINCK, M.P.**, Underley Hall, Kirkby Lonsdale. (Ewes.)
 589 II. (44.)—**LORD HENRY BENTINCK, M.P.** (Yearling Ewes.)
 590 III. (41.)—**ROBERT GRAHAM**, Auchenglassel, Tynholm, N.B. (Yearling Ewes.)

- Class 589.—Three Fleeces of Kent or Romney Marsh Wool.** [27 entries.]
 589 I. (43.)—**STANLEY STROUTS**, Singleton Manor, Great Chart, Ashford, Kent. (Ewes.)
 590 II. (42.)—**H. & G. W. FINN**, Westwood Court, Faversham, Kent. (Yearling Ewes or Wethers.)
 591 III. (41.)—**H. B. & C. AMOS**, Ripton, Ashford, Kent. (Ewes.)
 H. C.—512, 616, 617, 618, 621.

- Class 590.—Three Fleeces of Cotswold Wool.** [4 entries.]
 590 I. (43.)—**W. T. GARNE & SON**, Aldsworth, Northleach, Glou. (Yearling Ewes.)
 591 II. (42.)—**F. W. P. MATTHEWS**, Fildred, Oxon. (Yearling Ewes.)
 592 III. (41.)—**WILLIAM HOULTON**, Broadfield Farm, Northleach. (Ewes.)

- Class 591.—Three Fleeces of Dartmoor Wool.** [3 entries.]
 591 I. (43.)—**JOHN H. GLOVER**, Cornwood, Devon. (Yearling Ewes.)
 592 II. (42.)—**W. A. JOHNS & SONS**, Cleave, Kelly, Lilton, Devon. (Ewes.)

- Class 592.—Three Fleeces of Lemoor Horn Wool.** [1 entries.]
 592 I. (43.)—**PERCY SMYTH**, Broford, Dulverton, Somerset. (Yearling Ewes.)
 593 II. (42.)—**T. C. FRARSE**, Leigh, Dulverton, Somerset. (Yearling Ewes.)
 594 III. (41.)—**T. C. FRARSE**. (Yearling Wethers.)
 595 R. H. & H. O.—**D. J. TAPP**, Highercombe, Dulverton, Somerset. (Yearling Ewes.)

- Class 593.—Three Fleeces of Welsh Wool.** [19 entries.]
 593 I. (43.)—**JOHN C. WYNN-FINCH**, Voelas, Bettws-y-coed. (Yearlings.)
 594 II. (42.)—**TOM LEATHES**, Wern Fawr, Ruthin. (Yearling Ewes.)
 595 III. (41.)—**TOM LEATHES**. (Yearling Wethers.)
 596 R. H. & H. O.—**W. G. ROBERTS**, Dyswrth Hall, Dyswrth, Flintshire.
 H. O.—438.

- Class 594.—Three Fleeces of First Cross between Two Distinct Breeds of Short Wool.** [1 entry.]

- 594 I. (43.)—**TOM LEATHES**, Wern Fawr, Ruthin. (Yearling Ewes.) Cross, Shropshire Ram and Southdown Ewe.

- Class 595.—Three Fleeces of First Cross between Two Distinct Breeds of Long Wool.** [2 entries.]
 [No award.]

- Class 596.—Three Fleeces of First Cross of any Long and Short Wool.** [4 entries.]

- 596 I. (43.)—**GEORGE HARRISON**, Gainford Hall, Darlington. (Yearling Wethers.) Cross, Leicester Ram and Oxford Down Ewe.
 597 II. (42.)—**TOM LEATHES**, Wern Fawr, Ruthin. (Yearling Ewes.) Cross, Welsh Ram and Southdown Ewe.
 598 III. (41.)—**H. O. ELLIS**, Tynhendre, Bangor. (Yearling Wethers.) Cross, Southdown Ram and Welsh Ewe.

- Class 597.—Three Fleeces of First Cross of Pure-bred Sheep, of which one must be Mountain or Moorland.** [10 entries.]

- 597 I. (43.)—**C. H. LLOYD EDWARDS**, Nanheron, Porthell. (Yearling Ewes.) Cross, Southdown Ram and Welsh Mountain Ewe.
 598 II. (42.)—**ERNEST SHERWIN**, Upalad Farm, W. H. Bedale. (Yearling Ewes.) Cross, Wensleydale Ram and Scotch Ewe.
 599 III. (41.)—**UNIVERSITY COLLEGE OF SOUTH WALES**, College Farm, Aber, Bangor. (Yearling Ewes.) Cross, Southdown Ram and Welsh Mountain Ewe.
 600 R. H. & H. O.—**W. G. ROBERTS**, Dyswrth Hall, Dyswrth, Flintshire. (Yearling Ewes.) Cross, Southdown Ram and Welsh Mountain Ewe.

- Class 598.—Three Fleeces of Primitive British-bred Sheep or first cross from them.** [No entry.]

HIVES, HONEY, AND BEE APPLIANCES.

Class 599.—*Collections of Hives and Appliances.* [4 entries.]

- 681 I. (24).—W. P. MEADOWS, Syston, Leicester.
- 682 II. (22).—JAMES LEE & SON, George Street, Uxbridge, Middlesex.
- 679 III. (21).—R. J. BURT, Stroud Road, Gloucester.
- 682 E. N. & H. C.—R. H. TAYLOR, Welwyn, Herts.

Class 600.—*Frame Hives, for general use, unpainted.* [5 entries.]

- 687 I. (20a).—R. H. TAYLOR, Welwyn, Herts.
- 684 II. (15c).—JAMES LEE & SON, George Street, Uxbridge, Middlesex.
- 698 III. (10c).—W. P. MEADOWS, Syston, Leicester.

Class 601.—*Frame Hives, for Collager's use, unpainted.* [4 entries.]

- 691 I. (20a).—R. H. TAYLOR, Welwyn, Herts.
- 688 II. (15c).—JAMES LEE & SON, George Street, Uxbridge, Middlesex.
- 690 III. (10c).—W. P. MEADOWS, Syston, Leicester.

Class 602.—*Honey Extractors.* [4 entries.]

- 692 I. (15a).—W. P. MEADOWS, Syston, Leicester.
- 695 II. (10a).—E. H. TAYLOR, Welwyn, Herts.

Class 603.—*Observatory Hives, with not less than three Brood Combs, with Bees and Queen.* [1 entry.]

- 696 I. (20a).—A. W. SIMCOX, 17 Victoria Road, Fallings Park, Wolverhampton.

Class 604.—*Any appliances connected with Bee-keeping, to which no prize has been awarded at a Show of the R.A.S.B.* [8 entries.]

- 701 I. (10a).—JAMES LEE & SON, George Street, Uxbridge, Middlesex.
- 704 Certificate of Merit.—F. W. WATTS, 132 Goodrich Road, East Dulwich.
- 697 Certificate of Merit.—B. BLACKBOURN, Hoo, Maidstone, Thanet.

Class 605.—*Comb Honey.* [3 entries.]

- 705 I. (10a).—E. BROOKFIELD, Myddle, Salop.
- 706 II. (7a, 6d).—R. H. ELSON, Haygate Road, Wellington, Salop.
- 707 III. (3a, 6d).—H. HENSTOCK, Wilcot House, Nesscliffe, Salop.

Class 606.—*Extracted Light-coloured Honey.* [8 entries.]

- 708 I. (10a).—E. BROOKFIELD, Myddle, Salop.
- 714 II. (7a, 6d).—H. B. MILLINGTON, Wistanswick, Market Drayton.
- 713 III. (3a, 6d).—H. HULME, Quatford, Bridgnorth.
- 710 R. N. & H. C.—H. R. EDDOWS, Melbourne, The Chine, Grinshill, Shrewsbury.

Class 607.—*Collective Exhibits of Four Sections of Comb Honey; Four Jars of Extracted Light Coloured Honey; Four Jars of Extracted Medium of Dark Coloured Honey; Four Jars of Granulated Honey; and 1lb. of Beeswax.* [6 entries.]

- 721 I. (20a).—W. SHUKER, Middleton, Scriven, Bridgnorth, Salop.
- 720 II. (10a).—H. B. MILLINGTON, Wistanswick, Market Drayton.
- 716 III. (5a).—E. BROOKFIELD, Myddle, Salop.
- 717 R. N. & H. C.—R. H. ELSON, Haygate Road, Wellington, Salop.

Class 608.—*Comb Honey.* [16 entries.]

- 726 I. (20a).—W. N. HELME, Norton Canon, Weobley, Hereford.
- 734 II. (15c).—R. ROBSON, Cheviot Street, Wooler.
- 731 III. (10a).—J. G. NICHOLSON, The Apiary, Langwathby, Cumberland.
- 723 E. N. & H. C.—J. PEARMAN, Penny Long Lane, Derby.

Class 609.—*Extracted Light-coloured Honey.* [19 entries.]

- 740 I. (20a).—J. BERRY, The Apiary, Llanrwst, N. Wales.
- 743 II. (15a).—T. A. DENNISON, The Laurels, Stockton, Rugby.
- 752 III. (10a).—W. PATCHETT, Cadbourne, near Calster, Lincs.
- 754 R. N. & H. C.—J. PEARMAN, Penny Long Lane, Derby.

¹ Entries in Classes 605-607 can only be made by Members of the Shropshire Beekeepers' Association.

² Entries in Classes 608-611 can only be made by residents in Cheshire, Cumberland, Derbyshire, Durham, Herefordshire, Lancashire, Leicestershire, Lincolnshire, Monmouthshire, Northumberland, Nottinghamshire, Rutland, Shropshire, Staffordshire, Warwickshire, Westmorland, Worcestershire, Yorkshire, the Isle of Man, Ireland, Scotland, or Wales.

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- Class 610.—Extracted Medium or Dark-coloured Honey.** [14 entries.]
770 I. (20s.)—STUDLEY HORTICULTURAL COLLEGE, Studley Castle, Warwickshire.
780 II. (15s.)—W. SHYKER, Middleton, Norton, Bridgnorth, Salop.
785 III. (10s.)—T. A. DENNISON, The Laurels, Stockton, Rugby.
785 E. N. & H. C.—W. H. BARLOW, High Leyth, Knutsford.

- Class 611.—Granulated Honey.** [13 entries.]
783 I. (20s.)—A. W. WEATHERHOOD, Willington, Lincoln.
780 II. (15s.)—J. PEARMAN, Penny Long Lane, Derby.
771 III. (10s.)—J. BERRY, The Apiary, Llanrwst, N. Wales.
782 E. N. & H. C.—STUDLEY HORTICULTURAL COLLEGE, Studley, Warwickshire.
H. C.—778.

- Class 612.—Comb Honey.** [9 entries.]
785 I. (20s.)—F. BIRD, Little Canfield, Dunmow, Essex.
783 II. (15s.)—O. W. DYER, Compton Crossing, Newbury.
787 III. (10s.)—R. BROWN, Flora Apiary, Somersham, Hunts.
790 E. N. & H. C.—W. J. GOODRICH, 2 Oxford Street, Gloucester.
H. C.—786, 792.

- Class 613.—Extracted Light-coloured Honey.** [12 entries.]
801 I. (20s.)—S. G. S. LEIGH, The Nurseries, Broughton, Hunts.
800 II. (15s.)—G. W. KIRBY, 17 Priory Road, Knowle, Bristol.
799 III. (10s.)—D. HANCOX, Deddington, Oxford.
794 E. N. & H. C.—A. H. BOWEN, Coronation Road, Cheltenham.
H. C.—803.

- Class 614.—Extracted Medium or Dark-coloured Honey.** [8 entries.]
804 I. (20s.)—C. E. BILSON, Cranford, near Epping.
800 II. (15s.)—G. W. KIRBY, 17 Priory Road, Knowle, Bristol.
805 III. (10s.)—R. BROWN, Flora Apiary, Somersham, Hunts.
810 E. N. & H. C.—A. MACCULLAH, Webborton, Dunchidcock, Exeter.
H. C.—811.

- Class 615.—Granulated Honey.** [7 entries.]
814 I. (20s.)—A. H. BOWEN, Coronation Road, Cheltenham.
815 II. (15s.)—F. BIRD, Little Canfield, Dunmow, Essex.
817 III. (10s.)—A. MACCULLAH, Webborton, Dunchidcock, Exeter.
812 E. N. & H. C.—L. ANDREWS, Rock Road, Millfield, Peterborough.

- Class 616.—Shallow Frames of Comb Honey, for extracting.** [8 entries.]
819 I. (20s.)—R. BROWN, Flora Apiary, Somersham, Hunts.
822 II. (15s.)—F. G. HALES, Post Office, Welkow, Bath.
823 III. (10s.)—H. HENSTOCK, Wilcot House, Nesscliffe, Salop.

- Class 617.—Heather Honey.** [13 entries.]
829 I. (20s.)—W. DIXON, 27 Central Road, Leeds.
832 II. (15s.)—M. J. LAMBOLLE, Chiddingfold, Surrey.
827 III. (10s.)—J. BERRY, The Apiary, Llanrwst, N. Wales.
837 E. N. & H. C.—G. SCOTT, 84 Ayr Road, Cumnock, Ayrshire.
H. C.—828, 838.

- Class 618.—Heather Mixture Extracted Honey.** [9 entries.]
840 I. (20s.)—J. BERRY, The Apiary, Llanrwst, N. Wales.
842 II. (15s.)—F. C. HOLMES, Powis Castle Nursery, Welshpool.
846 III. (10s.) & 847 E. N. & H. C.—J. PEARMAN, Penny Long Lane, Derby.

- Class 619.—Best and Most Attractive Displays of Honey.** [8 entries.]
856 I. (30s.)—J. PEARMAN, Penny Long Lane, Derby.
849 II. (20s.)—R. BROWN, Flora Apiary, Somersham, Hunts.
851 III. (10s.)—W. DIXON, 27 Central Road, Leeds.
853 E. N. & H. C.—F. C. HOLMES, Powis Castle Nursery, Welshpool.
H. C.—855.

- Class 620.—Exhibits of not less than 2 lb. of Beehive, the Produce of the Exhibitor's Apiary.** [13 entries.]
868 I. (10s.)—W. PATCHETT, Cuthbert, near Cusior, Lancs.
858 II. (7s. 6d.)—R. BROWN, Flora Apiary, Somersham, Hunts.
869 III. (5s.)—J. PEARMAN, Penny Long Lane, Derby.
866 E. N. & H. C.—A. MACCULLAH, Webborton, Dunchidcock, Exeter.
H. C.—867, 864.

* Entries in Classes 612-615 can only be made by residents in Bedfordshire, Berkshire, Buckinghamshire, Cambridgeshire, Cornwall, Devon, Dorset, Essex, Gloucestershire, Hampshire, Hertfordshire, Huntingdonshire, Isle of Wight, Kent, Middlesex, Norfolk, Northamptonshire, Oxfordshire, Somerset, Suffolk, Surrey, Sussex, or Wiltshire.

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Class 621.—Exhibits of, not less than 3 lb. of Beeswax, the Produce of the Exhibitor's Apiary. [7 entries.]

- 626 I. (10s.)—J. PEARMAN, Penny Long Lane, Derby.
- 670 II. (7s. 6d.)—J. BERRY, The Apiary, Llanrwst, N. Wales.
- 674 III. (5s.)—A. MACOULLAH, Webborton, Dunchidcock, Exeter.
- 672 E. N. & H. O.—F. W. PRUSHER, Swiss Apiary, Crowland, Peterborough.

Class 622.—Honey Vinegar. [6 entries.]

- 678 I. (7s. 6d.)—R. BROOK, Flora Apiary, Somersham, Hunts.
- 680 II. (5s.)—G. W. KIRBY, 17 Priory Road, Knowle, Bristol.
- 677 Certificate of Merit.—J. BERRY, The Apiary, Llanrwst, N. Wales.
- 682 E. N. & H. O.—J. PEARMAN, Penny Long Lane, Derby.

Class 623.—Mead. [10 entries.]

- 683 I. (7s. 6d.)—J. BERRY, The Apiary, Llanrwst, N. Wales.
- 681 II. (5s.)—J. THOMPSON, 60 Warwick Road, St. Peter's Park, Paddington, London, W.
- 680 Certificate of Merit.—J. PEARMAN, Penny Long Lane, Derby.
- 686 E. N. & H. O.—F. C. HOLMES, Foyles Castle Nursery, Welshpool.

Class 624.—Exhibits of a practical or interesting nature connected with Bee-culture, not mentioned in the foregoing Classes. [2 entries.]

- 684 I. (10s.)—A. MACOULLAH, Webborton, Dunchidcock, Exeter.
- 685 II. (5s.)—W. DIXON, 27 Central Road, Leeds.

Class 625.—Exhibits of a scientific nature, not mentioned in the foregoing Classes. [2 entries.]

- 686 I. (10s.)—G. STEVENSON, Shattisbury Lodge, Bisleigh, Surrey.
- 685 II. (5s.)—D. LINDSAY, St. Paul's School, Worcester.

BUTTER-MAKING COMPETITIONS.

Tuesday, June 30. [20 entries.]

- 15 I. (2s.)—MRS. W. H. WYNN, Woodcote Farm, Newport, Salop.
- 20 II. (2s.)—MISS ANNIE JONES, Freshfield, Gobowen, Salop.
- 18 III. (2s.)—MISS JESSIE IDIENS, Longnor Farm, Penkridge, Staffs.
- 7 Equal Prize (Miss ELIZABETH EVANS, Llewellyn Hall, Denbigh.
- 14 of 15s.—MISS JESSIE HEWITT, Hall Farm, Westbury, Salop.

Certificates of Merit.—1, 3, 4, 17, 19.

Wednesday, July 1. [20 entries.]

- 29 I. (2s.)—MISS ANNIE SIMPSON, Beech Cliffe Farm, near Newcastle, Staffs.
- 12 II. (2s.)—MISS M. SIMPSON, Beech Cliffe Farm, near Newcastle, Staffs.
- 40 III. (2s.)—MISS EDITH H. SIMPSON, Adderley Lodge, Market Drayton.
- 21 IV. (2s.)—MISS RACHEL ROBERTS, Clydog, Llanrhadr, Oswestry.
- 38 V. (10s.)—MISS RUTH BLAKEMAN, May Farm, Whitgreave, Stone.

Certificates of Merit.—24, 25, 27, 30, 32, 35, 39.

Thursday, July 2. [20 entries.]

- 52 I. (2s.)—MISS MAUDE ROBERTS, Dyffryn, Melfod, Welshpool.
- 57 II. (2s.)—MISS MARY ELIZABETH KENT, Oncote Farm, Eccleshall, Staffs.
- 60 III. (2s.)—MISS LIZZIE BOWEN, Nantforch, Welshpool.
- 42 IV. (2s.)—MISS NELLIE DEAVILLE, Dimdale Hall Farm, Chesterton, Newcastle, Staffs.
- 53 V. (10s.)—MISS MARY KIDSON, Oaks Moor House, Wheaton Aston, Staffs.

Certificates of Merit.—41, 48, 49, 50, 51, 63, 54, 55.

Champion Class.—Saturday, July 4.

- 29 I. (2s.)—MISS ANNIE SIMPSON, Beech Cliffe Farm, near Newcastle, Staffs.
- 57 II. (2s.)—MISS MARY ELIZABETH KENT, Oncote Farm, Eccleshall, Staffs.
- 40 III. (2s.)—MISS EDITH H. SIMPSON, Adderley Lodge, Market Drayton.
- 15 IV. (2s.)—MRS. W. H. WYNN, Woodcote Farm, Newport, Salop.
- 31 V. (10s.)—MISS M. SIMPSON, Beech Cliffe Farm, near Newcastle, Staffs.

H. O.—14, 18, 20, 22, 60.

Special Prizes given by the Montgomeryshire County Agricultural Education Committee for candidates resident in the County of Montgomery who obtain the highest number of marks in the competitions.

- 52 I. (2s.)—MISS MAUDE ROBERTS, Dyffryn, Melfod, Welshpool.
- 60 II. (2s.)—MISS LIZZIE BOWEN, Nantforch, Welshpool.
- 19 III. (2s.)—MISS JENNIE TUDOR, Cannon, Llanfaryl, Welshpool.
- 21 IV. (2s.)—MISS RACHEL ROBERTS, Clydog, Llanrhadr, Oswestry.

HORSE-SHOEING COMPETITIONS.

Class 1.—*Hunters*. [30 entries.]

- 21 I. (25 & G. M. 1)—F. W. SHEPPARD, R.S.S. The Forge, Upham, Southampton.
 22 II. (23 10a, & S. M. 1)—F. R. WHITEHORN, R.S.S. 71 Radnutt Grove, Ebbw Vale, Mon.
 23 III. (22 10a, & B. M. 1)—EVAN EVANS, A.F.C.L. R.S.S. Rhyl-y-pelon Forge, Gorseinon, Glam.
 24 IV. (21)—GEORGE DEIGHTON, R.S.S. Central Shoeing Forge, Tower Street, Harrogate.
 25 V. (21 10a)—WILLIAM PRICE, A.F.C.L. R.S.S. Penybont, Radnor.
 26 VI. (20)—ELI DEAVILLE, R.S.S. Hanbury, Burton-on-Trent.
 27 B. H. & H. C.—WILLIAM SMITH, A.F.C.L. R.S.S. Mears Ashby, Northampton.
 H. C.—12, 28. C.—5, 9, 11, 26.

Class 2.—*Roadsters*. [40 entries.]

- 28 I. (25 & G. M. 1)—HERBERT MORGAN, A.F.C.L. R.S.S. Cwmper, Llanarthney.
 29 II. (23 10a, & S. M. 1)—WILLIAM SMITH, A.F.C.L. R.S.S. Mears Ashby, Northampton.
 30 III. (22 10a)—JOHN DAVIES, Cambrian Forge, Carmarthen.
 31 IV. (21 & B. M. 1)—THOMAS PRICE, R.S.S. Penybont.
 32 V. (21 10a)—WILLIAM MORGAN, Cwmper, Llanarthney.
 33 VI. (21)—F. W. SHEPPARD, R.S.S. The Forge, Upham, Southampton.
 34 B. H. & H. C.—ROBERT JONES, R.S.S. The Forge, St Arvans, Chepstow.
 H. C.—40, 64, 65. C.—42, 46, 54, 63, 67.

Class 3.—*Cart Horses*. [36 entries.]

- 35 I. (25 & G. M. 1)—THOMAS PRICE, R.S.S. Penybont, Radnorshire.
 36 II. (23 10a, & S. M. 1)—J. CHARLES MORRIS, A.F.C.L. R.S.S. Lednam Street Shoeing Forge, Birmingham.
 37 III. (22 10a, & B. M. 1)—ISAAC W. VALE, R.S.S. 212 Emacole Road, Warwick.
 38 IV. (21)—HARRY JONES, R.S.S. The Hendre Forge, Monmouth.
 39 V. (21 10a)—DAVID GRIFFITHS, R.S.S. Detyock, Breconshire.
 40 VI. (21)—TOM DRING, R.S.S. Duke Street Shoeing Forge, Ashton-under-Lyne.
 41 B. H. & H. C.—J. W. JONES, R.S.S. Cwnty Cadno Forge, Pumpsant, Llanwrda, Carmarthenshire.
 H. C.—22, 27, 29, 103. C.—90, 92, 94, 98, 102, 104.

FARM PRIZE COMPETITIONS.¹(Open to *bona fide* Tenant Farmers.)

For the best managed Farms in Shropshire, Montgomeryshire, and Staffordshire.

Class 1.—*Grazing or Dairy Farms, 150 acres or over (exclusive of Sheep Run), of which two-thirds must be permanent grass.* [13 entries.]

- 1 I. (275)—WILLIAM EVERALL, Forton, Montford Bridge, Shrewsbury.
 10 II. (250)—WILLIAM NUNNIBLEY, Kenwick, Elm-ers, Shropshire.
 11 III. (220)—THOMAS BRITON NUNNIBLEY, The Twoelm, Whitchurch, Shropshire.
 2 B. H. & H. C.—JOHN S. FURNIVAL, Studley Farm, Mucklestone, Market Drayton.
 H. C.—12.

Class 2.—*Grazing or Dairy Farms of not less than 50 acres and under 150 acres (exclusive of Sheep Run), of which two-thirds must be permanent grass.* [5 entries.]

- 15 I. (250)—THOMAS EVANS, Dyffryn, Berriew, Welshpool.
 17 II. (230)—JAMES OWEN, Cocksbut Farm, Montgomery.
 19 III. (210)—GEORGE WARREN, Hilly Lees Farm, Nenton, near Macclesfield.

Class 3.—*Farms, chiefly Arable, 150 acres or over (exclusive of Sheep Run).* [13 entries.]

- 19 I. (275)—J. MORRIS BELCHER, Tibberton Manor, Newport, Shropshire.
 20 II. (250)—JOHN EDWARD ROUTING, Oakley Hall Farm, Market Drayton.
 21 III. (220)—R. FREERE & SON, Cressage House, Cressage, near Shrewsbury.
 22 B. H. & H. C.—THOMAS STEPHEN MINTON, Montford, Shrewsbury.
 V. H. C.—24. H. C.—22, 23.

¹ Gold Medal given by the Worshipful Company of Furriers to the First Prize Winner in each Class.² Silver and Bronze Medals given by the National Master Farriers' Association, in each Class, for Members of that Association only.³ Prizes given by the Shrewsbury Local Committee.

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Class 4.—Farms, chiefly Arable, of not less than 50 acres and under 150 acres
(exclusive of Sheep Run). [6 entries.]

- 24 I. (250).—WILMOT JACKSON, Manor House Farm, Abbots Bromley, near Rugby.
25 II. (230).—PETER CROW, Manor Farm, Trysull, near Wolverhampton.
26 III. (210).—RICHARD BRIAN MARSH, Holloway, Craven Arms, Shropshire.
27 R. N. & H. O.—MRS. SARAH ELLEN GIBBS, Corbet Arms Farm, Upton Magna, near
Shrewsbury.
H. O.—87.

**Rewards for the Encouragement of Skilled Agricultural
Labour and Long Service.**

*The following Candidates have been awarded Bronze Medals and Certificates
under the Society's Scheme.*

WEM AND DISTRICT AGRICULTURAL ASSOCIATION.

- Francis Eardley, Haughton Farm, Shifnal, Salop (Ploughing).
William Beddow, Scoulton Hall, Wem, Salop (Ploughing).
F. Arrowsmith, Nongly, Wem, Salop (Ploughing).
Alfred Tibbott, Broughton, Harmer Hill, Shrewsbury (Ploughing).
Alfred Davies, Broughton, Harmer Hill, Shrewsbury (Ploughing).
Thomas Pryce, Astley Lane, Hadnall, Salop (Hedging).
Herbert Sherry, Bagley Marsh, Ellesmere (Hedging).
W. Husbands, Balderton, Myddle, Salop (Hedging).

NEWPORT (SALOP) PLOUGHING AND HEDGING COMPETITIONS.

- T. Bebb, Brockton, Newport, Salop (Ploughing).
H. Shingler, Great Chastwell, Newport, Salop (Ploughing).
B. Jones, Chastwell, Aston, Newport, Salop (Ploughing).
T. Buttery, The Woodlands, Weston-under-Lizard, Shifnal (Ploughing).
J. Beech, Jun., Donnington, Newport, Salop (Hedging).
G. Johnson, Guild Farm, Newport, Salop (Hedging).

**BURWARTON, BRIDGNORTH AND DISTRICT PLOUGHING AND HEDGING
ASSOCIATION.**

- Cecil Jones, c/o Mr. Thomas Jones, Bridgnorth, Salop (Ploughing).
Thomas Pope, Ovenbold, Brockton, Much Wenlock, Salop (Ploughing).
Thomas Dorriceut, Walton Stottesdon, Cleobury Mortimer, Salop (Ploughing).
Ogell Morris, Sidbury, Bridgnorth (Ploughing).
Charles Evans, Cleobury North, Bridgnorth (Hedging).
Richard Orfield, Field House, Stanton Long, Much Wenlock (Hedging).

BURWARTON AND DISTRICT FARMERS' CLUB.

- John Thomason, c/o E. W. Birt, Esq., Burwarton, Bridgnorth (Long Service).

STAFFORDSHIRE AGRICULTURAL SOCIETY (NEWCASTLE DISTRICT).

- H. Lee, c/o Mrs. Lawton, Baldwin Gate, Whitmore, Staffs. (Ploughing).
J. Huxley, c/o R. Tomlinson, Esq., Dorrington, Market Drayton (Ploughing).
T. Hitchin, c/o W. G. Moss, Randilow, Betley, Crewe (Ploughing).
J. Swinnerton, c/o C. J. Wood, Wrinchill Hall, Betley, Crewe (Ploughing).
W. Butler, c/o R. Gordon, Bridgmere, Nantwich, Cheshire (Hedging).
H. Brindley, c/o C. J. Wood, Wrinchill Hall, Betley, Crewe (Hedging).
Ralph Picken, c/o A. H. Griffin, Ivy House Farm, Whitmore, near Newcastle, Staffs.
(Long Service).

STAFFORDSHIRE AGRICULTURAL ASSOCIATION (STONE DISTRICT).

- J. Gilbert, c/o B. J. Finney, Sandyford, Stone, Staffs. (Ploughing).
T. Capewell, c/o J. R. Weaver, The Mill, Stone, Staffs. (Ploughing).
H. Warfflow, c/o J. Brandon, Meaford, Stone, Staffs. (Ploughing).
D. Goodwin, c/o M. Hart, Cocknaze, Longton, Staffs. (Hedging).
S. Myatt, Jun., Whitgreave, Stone, Staffs. (Hedging).
H. Mellor, c/o T. Brandon, Aston, Stone, Staffs. (Hedging).

STAFFORDSHIRE AGRICULTURAL SOCIETY (ECCLESHALL DISTRICT).

- F. Poole, c/o Mr. Marsh, Bishops Offley, Eccleshall, Staffs. (Ploughing).
R. Ferrybrough, c/o G. Watson, Knighley, Eccleshall, Staffs. (Ploughing).
N. Simpson, Slinford House, Eccleshall, Staffs. (Ploughing).
C. Jenkinson, c/o J. Q. Lamb, Horsley, Eccleshall, Staffs. (Ploughing).
H. Johnson, c/o W. H. Shaw, Brockton, Eccleshall, Staffs. (Hedging).

STAFFORDSHIRE AGRICULTURAL SOCIETY (STAFFORD DISTRICT).

- J. Crotchley, c/o C. F. South, Bank Passage, Stafford (Ploughing).
I. Nichol, c/o R. G. Patterson, Acton Hill, Stafford (Ploughing).
Sydney Heath, Deaneys Farm, Penkridge, Staffs. (Ploughing).
S. Dent, c/o S. Myatt, Whitgreave, Stone, Staffs. (Hedging).
J. Myatt, Whitgreave, Stone, Staffs. (Hedging).

Award of Prizes at Shrewsbury, 1914.

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STAFFORDSHIRE AGRICULTURAL SOCIETY (BURTON DISTRICT)

C. Alkin, Rangemore Estate, Burton-on-Trent (Ploughing).
J. Chessa, c/o Col. Harrison, Orgreave Hall, Lichfield (Ploughing).
J. Asbury, c/o H. W. Ashmall, Caldwell, Burton, Staffs. (Ploughing).
E. Grimley, c/o H. Robotham, Rowley Farm, Burton, Staffs. (Ploughing).
J. Harvey, Rangemore Estate, Burton-on-Trent (Hedging).
W. Aspley, c/o Sir Reginald Hardy, Barr, Dunstall Hall, Burton-on-Trent (Hedging).
W. Aspley, Jun., Old Hall Farm, Dunstall, Burton-on-Trent (Hedging).

STAFFORDSHIRE AGRICULTURAL SOCIETY (UTTOXETER DISTRICT)

William Jackson, Manor Farm, Abbot Bromley, Rugby, Staffs. (Ploughing).
Cecil E. Freeman, Field, Uttoxeter (Ploughing).
Robert Arnold, c/o J. Bamford, Old Fields Hall, Uttoxeter (Hedging).
John Barrisford, Jun., Low Fields Farm, Uttoxeter (Hedging).
Harold Barrisford, Low Fields Farm, Uttoxeter (Hedging).
John Pattinson, c/o Thomas Wood, Croxden Abbey, Leicester, Stafford (Long Service).

STAFFORDSHIRE AGRICULTURAL SOCIETY (LICHFIELD, TAMWORTH AND WALSALL DISTRICT)

William Shorthouse, c/o E. Kendrick, Westford House, Lichfield (Long Service).

WHITCHURCH AND DISTRICT AGRICULTURAL AND HORTICULTURAL SOCIETY.

W. Beddow, c/o J. E. Ward, Spring Hill, Alkington, Whitechurch, Salop (Ploughing).
Thomas Davenport, c/o T. W. Pickford, Raddley House Farm (Ploughing).
G. Beddow, c/o Charles Weaver, Goldsmith House Farm (Ploughing).
J. E. Ward, Spring Hill Farm, Alkington, Whitechurch, Salop (Ploughing).
W. Thomas, c/o T. W. Higginson, Ashford Grange (Ploughing).
John Eaton, Myddle Wood, Shrewsbury (Hedging).
William Reeves, Bagley Marsh, Ellesmere, Salop (Hedging).
Thomas Lewis Griffiths, Ellesmere, Salop (Hedging).
Joseph Harper, Ravensmore, near Nantwich (Hedging).

DRAYTON MANOR AND DISTRICT PLOUGHING ASSOCIATION.

Percy Taylor, Bangley Farm, near Tamworth (Ploughing).
George Simmons, Middleton, near Tamworth (Ploughing).
Joseph Talbot, Drayton Manor Farm, near Tamworth (Hedging).

LLANDIDLOES DISTRICT PLOUGHING MATCHES ASSOCIATION.

John Davies, Nantyrhegog, Llandidloes, Mont. (Ploughing).
W. R. Withers, Pantlwyn Sarn, Kerry, Mont. (Ploughing).
E. A. Williams, Bwlchylyfan, Trefeglwys, Mont. (Ploughing).
Thomas B. Jones, Gyll, Trefeglwys, Mont. (Ploughing).
Richard Davies, Neuadd Newydd, Cerswys, Mont. (Hedging).
William Ashton, Bwlchylyfan, Llandidloes, Mont. (Hedging).
D. Lloyd George, Penybank, Llandidloes, Mont. (Hedging).

POWYSLAND PLOUGHING AND HEDGING ASSOCIATION.

D. W. Morgan, Pontsawrthgal, Meifod, Welshpool (Ploughing).
R. Bowen, Clawdd, Meifod, Welshpool (Ploughing).
J. Jones, Pentre, Bynarth, Gwilsfield, Welshpool (Ploughing).
P. Owen, Tyceoch, Meifod, Welshpool (Ploughing).
T. H. Wilde, Red House, Gwyford, Gwilsfield, Welshpool (Hedging).
J. Griffiths, Meifod, Welshpool (Hedging).
Pryce Lewis, Stone House, Bwlchylyfan, S.O., Mont. (Hedging).
W. Morris, Maen, Meifod, Welshpool (Hedging).

CENTRAL MONTGOMERYSHIRE AGRICULTURAL ASSOCIATION.

E. E. Williams, Gyll, Trefeglwys, Mont. (Ploughing).
John Oliver, Caeaplyn, Trefynon, Newtown, Mont. (Ploughing).
E. Bayliss, White Hall, Llandysil, Mont. (Ploughing).
Richard Davies, Neuadd Newydd, Cerswys, Mont. (Hedging).
John Davies, Meadows, Monafon, Newtown, Mont. (Hedging).
Alfred Davies, Neuaddwyd, Trefynon, Newtown, Mont. (Hedging).

KNIGHTON AND DISTRICT AGRICULTURAL IMPROVEMENT SOCIETY.

W. Vaughan, Croft Farm, Cantref, Brecon (Ploughing).
William Rees, Pilleth Court, Knighton, Radnorshire (Ploughing).
Richard Swancott, Farrington, Knighton, Radnorshire (Ploughing).
John Taylor, Hopton Castle, Ashton-on-Cher, Salop (Ploughing).
George Watkins, Farrington, Knighton, Radnorshire (Ploughing).
David Rogers, Kinsham, Presteigne, Radnorshire (Ploughing).
Joseph Price, Lower Heath, Presteigne, Radnorshire (Hedging).
Richard Meredith, Upper Weston, Llansammlt, Radnorshire (Hedging).
John Meredith, Kevan, Boreford, Presteigne, Radnorshire (Hedging).
Ben Lewis, Sir Is. Green Price's Estate, Bledfa, Llansammlt (Hedging).
Thomas Plane, The Grove, Knighton, Radnorshire (Hedging).

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SEVERN VALLEY AGRICULTURAL ASSOCIATION.

Richard Vaughan, Trewern Hall, Buttington, Welshpool (Ploughing).
 William Trow, Park Farm, Leighton, Welshpool (Ploughing).
 A. Jones, Origion Hall, Ford, near Shrewsbury (Ploughing).
 John Edwards, Hope, Buttington, Welshpool (Hedging).
 Richard Pugh, Buttington Hall, Welshpool (Hedging).
 William Turner, Bank Farm, Middleton, Welshpool (Hedging).
 William Evans, Grooms Hill, Buttington, Welshpool (Long Service).

SEVERN VALLEY FARMERS' CLUB.

F. Dewes, Blackland, Bobbington, Stourbridge (Ploughing).
 J. Bates, Coton Cottage, Bridgnorth (Ploughing).
 H. Mottershead, Lye Hall Farm, Quatt, Bridgnorth (Ploughing).
 H. Bates, Coton Cottages, Bridgnorth (Hedging).
 A. Shutt, Broad Oak, Six Ashes, Bridgnorth (Ploughing).

CHAMPIONSHIP HEDGING COMPETITION.

Held at **SHREWSBURY, FEBRUARY 25, 1914.**

(Confined to First Prize Winners in Hedging Competitions of Agricultural Societies in Shropshire, Montgomeryshire, and Staffordshire, registered by the Royal Agricultural Society of England.)

A Silver Medal, Certificate, and £5 was awarded to the winner of the Competition.

1. **JOHN EATON**, Myddle Wood, Shrewsbury, (Whitechurch and District Agricultural and Horticultural Society.)
 2. **H. ROBERT ARNOLD**, Stramshall, Uttoxeter, (Staffordshire Agricultural Society, Uttoxeter District).
 H. C.—**HARRY JOHNSON**, Slindon, near Eccleshall, Staffs. (Staffordshire Agricultural Society, Eccleshall District.)

FORESTRY SECTION.

Class 1.—Specimens of Oak, Elm, Ash, and Beech Timber. [8 entries.]

- 4 Silver Medal.—**THE EARL OF POWIS**, Powis Castle, Welshpool.
 4 Bronze Medal.—**LADY WANTAGE**, Lockinge Park, Wantage.
 H. C.—5.

Class 2.—Specimens of Larch, Spruce, and Scotch Pine Timber. [11 entries.]

- 18 Silver Medal.—**T. J. MYTTON MORE**, Linley, Bishop's Castle, Salop.
 16 Bronze Medal.—**LADY WANTAGE**, Lockinge Park, Wantage.
 H. C.—13.

Class 3.—Specimens of any other sort of Hard Wood or Broad-leaved Timber. [7 entries.]

- 23 Silver Medal.—**LADY WANTAGE**, Lockinge Park, Wantage.
 22 Bronze Medal.—**LORD HARLECH**, Brogyntyn, Oswestry.
 H. C.—26.

Class 4.—Specimens of any other sort of Coniferous Timber. [7 entries.]

- 35 Silver Medal.—**J. MURRAY NAYLOR**, Leighton Hall, Welshpool.
 32 Bronze Medal.—**LT. COL. A. H. O. LLOYD, M.V.O.**, Leaton Knolls, Shrewsbury.
 H. C.—23.

Class 5.—Collections of Planks of Home-grown Woods. [2 entries.]

- 34 Silver Medal.—**LADY WANTAGE**, Lockinge Park, Wantage.
 36 Bronze Medal.—**C. COLTMAN ROGERS**, Stanage Park, Brampton Bryan.

Class 6.—Specimens of Panels or Boards of various species; also Home-made Specimens of Furniture and other articles grown and manufactured on Exhibitor's Estate. [6 entries.]

- 49 Silver Medal.—**C. COLTMAN ROGERS**, Stanage Park, Brampton Bryan.
 38 Bronze Medal.—**EARL BROWNLOW**, Bridgewater, Ellesmere.

Class 7.—Oak Field Gates for Farm use. [8 entries.]

- 44 Silver Medal.—**LORD HARLECH**, Brogyntyn, Oswestry.
 43 Bronze Medal.—**MRS. EVELYN MARY TALBOT**, Edgmond, Newport, Salop.

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- Class 7.—Field Gates for Farm use, of any other Home-grown Wood, or Combination of Home-grown Woods.** [11 entries.]
- 58 Silver Medal.—**MRS EVELYN MARY TALEOT**, Edmond, Newport, Salop.
- 59 Bronze Medal.—**LORD HARLECH**, Brogyntyn, Oswestry.
- H. C.—54.
- Class 9.—Wicket or Hunting Gates.** [8 entries.]
- 66 Silver Medal.—**MRS ISABEL M. H. MORRIS-ETTON**, Wood Eaton Manor, Stafford.
- H. C.—55.
- Class 10.—Tree Guards.** [7 entries.]
- 70 Silver Medal.—**LORD HARLECH**, Brogyntyn, Oswestry.
- 71 Bronze Medal.—**O. COLTMAN ROGERS**, Stange Park, Brampton Bryan.
- Class 11.—Fencing of Home-grown Wood, and made in Great Britain.** [27 entries.]
- 99 Silver Medal.—**JOHN WALKER (Uthorster) LTD.**, Uthorster.
- 100 Bronze Medal.—**LECOLL A. H. O. LLOYD, M.V.O.**, Leston Knots, Shrewsbury.
- Class 12.—Fencing of Foreign Timber.** [2 entries.]
- 76 Silver Medal.—**ARMSTRONG, ADDISON & CO.**, Sunderland.
- 103 Bronze Medal.—**BUILDING MATERIAL SUPPLY STORES, LTD.**, 16A Chester Street, Shrewsbury.
- Class 13.—Specimens showing comparative quality of any Timber grown on different soil and situations, and the respective ages at which it reaches marketable size and maturity.** [1 entry.]
- 104 Silver Medal.—**LADY WANTAGE**, Lockinge Park, Wantage.
- Class 14.—Specimens of Stems, and Boards cut from them, illustrating the effects of some and thin crops in branch suppression and quality of timber.** [1 entry.]
- 105 Silver Medal.—**LADY WANTAGE**, Lockinge Park, Wantage.
- Class 15.—Nurserymen's Competition for the best exhibit of rarer Specimen and Ornamental Trees.** [2 entries.]
- 106 Silver Medal.—**DICKSONS, LTD.**, Chester.
- 107A Bronze Medal.—**KING'S ACRE NURSERIES, LTD.**, Hereford.
- Classes 16 to 23.—Articles not for Competition.**
- Silver Medals.**
- 112.—**WM. PAULGRAVE ELLMORE**, The Willows, Leicester.
- 128 & 130.—**O. COLTMAN ROGERS**, Stange Park, Brampton Bryan.
- 138.—**R. GROOM, SONS & CO.**, Shropshire Works, Wellington, Salop.
- Bronze Medals.**
- 110.—**WM. PAULGRAVE ELLMORE**, The Willows, Leicester.
- 129.—**THE EARL OF POWIS**, Powis Castle, Welshpool.
- 131 & 137.—**THE EARL OF POWIS**, Walcot, Lydbury North, Salop.
- Gold Medal given for the best general collection of exhibits in Classes 1-23 to **LADY WANTAGE**, Lockinge Park, Wantage.
- Reserve for Gold Medal to **O. COLTMAN ROGERS**, Stange Park, Brampton Bryan.
- Home Grown Tobacco.*
- Silver Medal.—**SIR NUGENT T. EVERARD, BT.**, Randlestown, Navan, Co. Meath.
- Bronze Medals.—**SIR NUGENT T. EVERARD, BT.**
 A. J. BRANDON, Redfields, Church Crookham, Hants.
 G. F. JOHNSTON, Sunnyside, Methwold, Norfolk.
- Certificate of Merit.—**THE EARL OF DUNRAVEN**, Adare, Co. Limerick.

PLANTATIONS COMPETITION.

Restricted to Shropshire, Staffordshire, Radnorshire, or Montgomeryshire.

Plantations must not be of less than ten years' growth.

STAGE A.—Plantations which have been weeded or lightly thinned, including the removal of dead or dying trees.

STAGE B.—From the end of STAGE A up to the completion of the second thinnings.

SECTION I.

HARDWOODS as final crop. To be not less than 4 acres in extent. Restricted to estates of which more than 300 acres are woodlands.

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Class 1, Stage A.

No. Award.

Class 2, Stage B.

No Award.

CONIFERS. To be not less than 4 acres in extent. Restricted to estates of which more than 300 acres are woodlands.

Class 3, Stage A.

Silver Medal.—THE EARL OF POWIS, Walcot, Lydbury North, Salop.

Bronze Medal.—F. J. HARRISON, Macra Hall, Newcastle, Staffs.

Class 4, Stage B.

Silver Medal.—THE TRUSTEES OF THE LATE H. J. ALLCROFT, Bedstone Court, Onibury, Salop.

Bronze Medal.—THE ESTATE OF THE LATE JOHN NAYLOR, Brythymor Hall, Kerry, Mont.

SECTION II.

HARDWOODS as final crop. To be not less than 2 acres in extent. Restricted to estates of which less than 300 acres are woodlands.

Class 5, Stage A.

Silver Medal.—A. HUMPHRIES OWEN, Glanacres, Mont.

Class 6, Stage B.

Silver Medal.—A. HUMPHRIES OWEN, Glanacres, Mont.

Bronze Medal.—W. F. BEDDOES, Minton, Church Stretton, Salop.

CONIFERS. To be not less than 2 acres in extent. Restricted to estates of which less than 300 acres are woodlands.

Class 7, Stage A.

Bronze Medal.—THOMAS THOMAS-MOORE, Old Hall, Dolan, Radnorshire.

Class 8, Stage B.

Silver Medal.—W. F. BEDDOES, Minton, Church Stretton, Salop.

Class 9.—*Best examples showing systematic management of existing woodland area, including the renovation and conversion of an unprofitable wood into a profitable condition.*

Silver Medal.—SIR HENRY W. A. RIPLEY, Bt., Bedstone House, Bucknell, Salop.

Bronze Medal.—MRS. CATHCART, Wootton Lodge, near Ashbourne, Staffs.

Class 10.—*Plantations of not less than 2 acres, consisting of Douglas Fir, Sitka Spruce, Japanese Larch, Corsican Pine, or any other rarer Conifer, pure or mixed, of not less than five or more than thirty years' growth.*

Silver Medal.—THE EARL OF POWIS, Walcot, Lydbury North, Salop.

Bronze Medal.—J. MURRAY NAYLOR, Leighton Hall, Welshpool.

Class 11.—*Best managed woodland estates, not less than 1,000 acres in area.*

Gold Medal.—J. MURRAY NAYLOR, Leighton Hall, Welshpool.

Silver Medal.—LORD BARNARD, Uppington, Wellington, Salop.

Bronze Medal.—C. COLTMAN ROOKES, Stannage Park, Radnorshire.

C.—CAPTAIN H. HEYWOOD-LONSDALE, Shavington, Market Drayton, Salop.

Gold Medal given by the Royal English Arboricultural Society for the best Plantation to THE TRUSTEES OF THE LATE H. J. ALLCROFT, Bedstone Court, Onibury, Salop.

HOME NURSERIES COMPETITION.

Restricted to Shropshire, Staffordshire, Radnorshire, or Montgomeryshire.

Class 1.—*Best Managed General Home Nurseries, not less than 1 acre in extent.*

Silver Medal.—CAPTAIN H. HEYWOOD-LONSDALE, Shavington, Market Drayton.

Bronze Medal.—LORD HARLEIGH, Brogyntyn, Oswestry, Salop.

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Class 2.—Best Managed General Home Nurseries, less than 1 acre in extent.

Silver Medal.—SIR HENRY W. A. RIPLEY, BT, Bodestone House, Bucknell, Salop.
Bronze Medal.—SIR R. N. GREEN-PRICK, BT, The Bangalow, Miodfa, Llangunilo.

Class 3.—Best Managed Temporary Forest Nurseries.

Bronze Medal.—T. J. MYTTON MOORE, Llanley, Bishop's Castle, Salop.

ARBORICULTURAL EXHIBITION.

Class 1.—Collections of New Hardy Trees and Shrubs, in or out of flower.
 [No award.]

Class 2.—Collections of New Hardy Trees and Shrubs, in or out of flower, for Amateurs.
 [No award.]

Class 3.—Collections of New Hardy Climbing Shrubs, in or out of flower.
 I. (46.)—L. R. RUSSELL, Richmond, Surrey.

Class 4.—Collections of Twelve New and Distinct Hardy Climbing Plants, for Amateurs.
 [No award.]

Class 5.—Collections of Berberis, including Mahonias.
 [No award.]

Class 6.—Nine New Varieties of Berberis (distinct).

I. (47.)—ROBERT WOODWARD, JDNR, Arley Castle, Bewdley.

Class 7.—Six New Shrubs, deciduous, evergreen, or both, excluding Conifers most suited for rocky planting.
 [No award.]

Class 8.—Twelve Shrubs, deciduous, evergreen, or both, including Conifers most suited for rocky planting.
 [No award.]

Class 9.—Collections of Rare Hardy or Semi-Hardy Shrubs, in or out of flower.
 I. (48. & Gold Medal.)—J. C. WILLIAMS, Werrington Park, Launceston.
 II. (49.)—DICKSONS LTD., Chester.

Class 10.—Groups of Bays.
 [No award.]

Class 11.—Two Pairs of Clipped Bays, each pair to be of different shape.
 [No award.]

Class 12.—Collections of Clipped Trees and Shrubs.
 [No award.]

Class 13.—Collections of Ivies.

I. (47.)—L. R. RUSSELL, Richmond, Surrey.

Class 14.—Collections of Hambois.

I. (48.)—L. R. RUSSELL, Richmond, Surrey.

Class 15.—Collection of Hardy Flowering and Foliage Trees and Shrubs.
 [No award.]

Class 16.—Twelve distinct Hollies.
 [No award.]

Class 17.—Collections of Maples.

II. (45.)—JONES & SON, Shrewsbury.

Class 18.—Collections of Chinese Plants, newly introduced.

Gold Medal.—J. C. WILLIAMS, Werrington Park, Launceston.

Class 19.—Collections of Japanese "Dwarfed Trees" and Shrubs.
 [No award.]

Class 20.—Twelve distinct Coloured Conifers, gold, silver, and variegated.
 [No award.]

Award of Prizes at Shrewsbury, 1914.

Class 21.—*Twelve distinct Green Conifers.*
[No award.]

Class 22.—*Collections of Rhododendrons in bloom.*
[No award.]

Class 23.—*Collections of Clematis.*
[No award.]

Class 24.—*Collections of American Plants, including Garden Roses of Rhododendrons.*
[No award.]

Class 25.—*Collections of Hardy Ferns.*
[No award.]

Class 26.—*Collections of Cut Branches from Trees and Shrubs, shown with foliage.*
I. (£1 10s.)—L. R. RUSSELL, Richmond, Surrey.

Class 27.—*Twenty-four Vases of Cut Foliage from Trees and Shrubs, for Amateurs.*
II. (£1 10s.)—B. WOODWARD, JUNR, Arley Castle, Bewdley.

Class 28.—*Eighteen Vases of Cut Flowering Trees and Shrubs, Roses excluded.*
I. (£1 10s.)—LORD KENYON, Gredington, Whitchurch, Salop.

Class 29.—*Nine distinct New Clematises.*
[No award.]

Class 30.—*Collections of Trees and Shrubs with ornamental Berries or Bracts.*
[No award.]

Class 31.—*Twelve New Acers, of not less than 10 distinct varieties.*
II. (£1 10s.)—B. WOODWARD, JUNR, Arley Castle, Bewdley.

Class 32.—*Twelve distinct Chinese or newly introduced Hard Wood Trees, except Acers, for Amateurs.*

Silver Gilt Medal.—B. WOODWARD, JUNR, Arley Castle, Bewdley.

Silver Medal.—C. COXTMAN ROGERS, Stanage Park, Radnorshire.

Class 33.—*Twelve distinct Chinese or newly introduced Conifers, for Amateurs.*

Silver Gilt Medal.—B. WOODWARD, JUNR, Arley Castle, Bewdley.

Silver Medal.—C. COXTMAN ROGERS, Stanage Park, Radnorshire.

Class 34.—*Twelve distinct Chinese or newly introduced Acers and other Shrubs for Amateurs.*

Silver Gilt Medal.—B. WOODWARD, JUNR, Arley Castle, Bewdley.

Silver Medal.—C. COXTMAN ROGERS, Stanage Park, Radnorshire.

Arboreicultural Exhibits, not for Competition.

Gold Medal.—Y. WATERER & SONS & CRISP, LTD., Bagshot, Surrey, and the KING'S ACRES NURSERIES, LTD., Hereford.

Silver Gilt Medal.—PIPER & SON, Bishop's Road, London, W.

Silver Medal.—DICKSONS, LTD., Chester, and JONES & SONS, Shrewsbury.

Award of Merit.—HON. JOHN BOSGAWEN, Tregeya, Perranwell, Cornwall.

IMPLEMENTS.

Miscellaneous Implements.

Silver Medals for articles entered as "New Implements for Agricultural or Estate Purposes."

281 JOHN S. MILLAR & SON, ANNAN, N.B., for Cream Separator, "Automatic"

302 HARRISON, MCGREGOR & CO., LTD., Albion Iron Works, Leigh, Lancs., for Chaff Cutter, three knives; also Chaff Sifter, new pattern Dust Extractor, Cavings Elevator, Chaff Bagger, Cyclone Dust Receptacle, &c.

PRIZE LIST

For NOTTINGHAM SHOW, JUNE 29 to JULY 3, 1915.

Total value of Prizes offered (inclusive of Champion Prizes, Special Prizes, Cups, Medals, and Other Prizes), 8,000l., of which amount 2,454l. are contributions from various Bred Societies, and 283l. from other sources.

CHAMPION PRIZES.

The following Champion Prizes are offered by Breed Societies and others:—

HORSES.

SHIRE HORSE SOCIETY:—Two Gold Medals, value 10l. each (or 10l. in money), for the best Shire Stallion, and for the best Mare or Filly; 5l. for the two Reserve Champions; and 5l. each to the Breeders of the Champion Shire Stallion, and Mare or Filly.

CLYDESDALE HORSE SOCIETY:—Two Prizes of 10l. each for the best Clydesdale Stallion, and for the best Mare or Filly.

SUFFOLK HORSE SOCIETY:—Challenge Cup, value 50l., for the best Suffolk Stallion.

HUNTERS' IMPROVEMENT AND NATIONAL LIGHT HORSE BREEDING SOCIETY:—Two Gold Medals for the best Hunter Mare 4 years and upwards, and for the best Filly not exceeding 4 years old.

NATIONAL PONY SOCIETY:—Two Gold Medals for the best Polo and Riding Pony Stallion or Colt, and for the best Mare or Filly; also a Bronze Medal for the best Foul.

HACKNEY HORSE SOCIETY:—Two Gold Medals, value 10l. each (or 10l. in money), for the best Hackney Stallion, and for the best Mare or Filly.

SHETLAND PONY STUD BOOK SOCIETY:—Silver Medal for the best Shetland Pony.

WELSH PONY AND COB SOCIETY:—Two Silver Medals and Certificates for the best Welsh Pony Stallion, and for the best Mare or Filly.

HARNESS CLASSES:—Two Gold Challenge Cups, value 50l. 10s. each—(i.) for the best Mare or Gelding in Novice Classes, (ii.) for best Mare or Gelding in open Classes.

CATTLE.

SHORTHORN SOCIETY:—Two Prizes of 20l. each for the best Shorthorn Bull, and for the best Cow or Heifer, and a Silver Medal to the breeders of the Champion Shorthorn Bull and Cow or Heifer.

DAIRY SHORTHORN (COATES'S HERD BOOK) ASSOCIATION:—Prize of 10l. for the best Pedigree Shorthorn Dairy Cow or Heifer; and a Challenge Cup, value 50l. 10s., for the best Pedigree Dairy Shorthorn Group of one Bull and two Cows or Heifers.

LINCOLNSHIRE RED SHORTHORN ASSOCIATION:—Two Prizes of 10l. each for the best Shorthorn Bull, and for the best Cow or Heifer.

HEREFORD HERD BOOK SOCIETY:—Two Prizes of 10l. 10s. each for the best Hereford Bull, and for the best Cow or Heifer.

DEVON CATTLE BREEDERS' SOCIETY:—Two Prizes of 10l. 10s. each for the best Devon Bull, and for the best Cow or Heifer.

SOUTH DEVONS:—A Challenge Cup, value 20l., for the best South Devon animal.

LONGHORN CATTLE SOCIETY:—Two Challenge Cups, value 15l. each, for the best Longhorn animals.

SUSSEX HERD BOOK SOCIETY:—Two Silver Medals for the best Sussex Bull, and for the best Cow or Heifer.

RED POLL SOCIETY:—Two Prizes of 5l. each for the best Red Poll Bull, and for the best Cow or Heifer.

ciii *Prize List for Nottingham Show, 1915.*

- ABERDEEN ANGUS CATTLE SOCIETY**.—A Gold Medal value 10l. for the best animal of the Aberdeen Angus breed.
- ENGLISH ABERDEEN ANGUS CATTLE ASSOCIATION**.—A Gold Medal for the animal of the opposite sex to that of the animal awarded the Gold Medal of the Aberdeen Angus Cattle Society.
- GALLOWAY CATTLE SOCIETY**.—Prize of 5l. for the best Galloway animal.
- BRITISH HOLSTEIN CATTLE SOCIETY**.—Silver Medals to the First Prize winners in the Classes for British Holstein Cattle.
- ENGLISH JERSEY CATTLE SOCIETY**.—Two Prizes of 5l. each for the best Jersey Bull and for the best Cow or Heifer.
- ROYAL JERSEY AGRICULTURAL SOCIETY**.—Ten Guinea Prizes for the best Jersey Cow and two of her progeny.
- ENGLISH GUERNSEY CATTLE SOCIETY**.—Two prizes of 5l. each for the best Guernsey Bull and for the best Cow or Heifer.
- ENGLISH KERRY AND DEXTER CATTLE SOCIETY**.—Challenge Cup value 20l. for the best Kerry Bull, and Two Challenge Cups value 20l. for each for the best Kerry Bull, Cow, or Heifer, and for the best Dexter Bull, Cow, or Heifer.
- ENGLISH JERSEY CATTLE SOCIETY**.—Gold Medal for the best animal; Silver Medal and Bronze Medal for the three best Jersey Animals in the other two Classes.

• SHEEP.

- SOUTHDOWN SHEEP SOCIETY**.—A Gold Medal (or 10l. if in money) for the best Southdown Ram; and a Silver Medal (or 1l. in money) for the best Fat of Ewes or Ewe Lambs.
- HAMPSHIRE DOWN SHEEP BREEDERS' ASSOCIATION**.—Prize of 10l. for the best Hampshire Down Ram Lamb, Fat of Ram Lamb, or Ewe Lamb.
- CANADIAN INDUSTRIAL EXHIBITION**.—Silver Medal for the best exhibit of Dorset Horn Sheep.
- LINCOLN LONG-WOOL SHEEP BREEDERS' ASSOCIATION**.—Prize of 5l. for the best Lincoln Ram.
- SOCIETY OF BORDER LEICESTER SHEEP BREEDERS**.—A Challenge Cup value 50l. for the best Border Leicester Sheep, and a Gold Medal to the winner.
- KENT OR ROMNEY MARSH SHEEP BREEDERS' ASSOCIATION**.—Prize of 20l. 10s. for the best Kent or Romney Marsh Ram.

PIGS.

- NATIONAL PIG BREEDERS ASSOCIATION**.—Six Gold Medals (or 5l. 5s. in money) for the best Large White Boar and Sow, Middle White Boar and Sow, and Tamworth Boar and Sow.
- BRITISH BERKSHIRE SOCIETY**.—Challenge Cup, value 20l. for the most points awarded in a combination of entries, also a Prize of 5l. 5s. for the best Berkshire Boar or Sow.
- LARGE BLACK PIG SOCIETY**.—Prize of 10l. for the best Large Black Boar; and a Challenge Cup value twenty guineas for the best Large Black Sow.
- LINCOLNSHIRE CURLY-COATED PIG BREEDERS' ASSOCIATION**.—Two Prizes of 5l. 5s. each, for the best Lincolnshire Curly-coated Boar and the best Sow.

HORSES (£1,985 10s.).

SHIRE.	Prizes			SHIRE.	Prizes		
	1st	2nd	3rd		1st	2nd	3rd
	£	£	£		£	£	£
STALLION, foaled in 1914 ¹	15	10	5	MARE, foaled in or before 1910			
STALLION, foaled in 1913	15	10	5	(with foal at foot)	15	10	5
STALLION, foaled in 1912	15	10	5	COLT FOAL, produce of mare			
FILLY, foaled in 1914 ¹	15	10	5	in above classes.	10	5	3
FILLY, foaled in 1913	15	10	5	FILLY FOAL, produce of mare			
FILLY, foaled in 1912	15	10	5	in above classes.	10	5	3
MARE, foaled in or after 1911				GELDING, foaled in or before			
(with foal at foot)	15	10	5	1912 ²	15	10	5

¹ Offered by the Shire Horse Society.

Prize List for Nottingham Show, 1915.

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	Prizes		
	1st	2nd	3rd
CLYDESDALE.			
STALLION, foaled in 1914	15	10	5
STALLION, foaled in 1913	15	10	5
STALLION, foaled in 1912	15	10	5
FILLY, foaled in 1914	15	10	5
FILLY, foaled in 1913	15	10	5
FILLY, foaled in 1912	15	10	5
MARE (with foal at foot)	15	10	5
FOAL, produce of mare in above class	10	5	3
GELDING, foaled in or before 1912	15	10	5
SUFFOLK.			
STALLION, foaled in 1914	15	10	5
STALLION, foaled in 1913	15	10	5
STALLION, foaled in 1912	15	10	5
FILLY, foaled in 1914	15	10	5
FILLY, foaled in 1913	15	10	5
FILLY, foaled in 1912	15	10	5
MARE (with foal at foot)	15	10	5
FOAL, produce of Mare in above class	10	5	3
HUNTERS.			
COLT OR GELDING, foaled in 1914	15	10	5
GELDING, foaled in 1913	15	10	5
GELDING, foaled in 1912	15	10	5
FILLY, foaled in 1914	15	10	5
FILLY, foaled in 1913	15	10	5
FILLY, foaled in 1912	15	10	5
MARE (Novice), foaled in or after 1907 (with foal at foot), up to from 12 to 14 st.	15	10	5
MARE (Novice), foaled in or after 1907 (with foal at foot), up to more than 14 st.	15	10	5
MARE (with foal at foot), up to from 12 to 14 st.	15	10	5
MARE (with foal at foot), up to more than 14 st.	15	10	5
COLT FOAL, produce of Mare in above classes	10	5	3
FILLY FOAL, produce of Mare in above classes	10	5	3
POLO AND RIDING PONIES.*			
COLT, FILLY, OR GELDING, foaled in 1914	10	5	3
COLT, FILLY, OR GELDING, foaled in 1913	10	5	3
STALLION, foaled in or before 1912, not exceeding 15 h.	10	5	3
FILLY OR GELDING, foaled in 1912	10	5	3
MARE (with foal at foot), not exceeding 14.2 h.	10	5	3
CLEVELAND BAY OR COACH HORSE.			
STALLION, any age	10	5	3
MARE (with foal at foot)	10	5	3
HACKNEYS.			
STALLION, foaled in 1914	15	10	5
STALLION, foaled in 1913	15	10	5
STALLION, foaled in or before 1912	15	10	5
FILLY, foaled in 1914	15	10	5
FILLY, foaled in 1913	15	10	5
FILLY, foaled in 1912	15	10	5
MARE (with foal at foot), over 14 h.	15	10	5

	Prizes		
	1st	2nd	3rd
HACKNEY PONY.			
STALLION, foaled in or before 1912, not over 14 h.	10	5	3
MARE (with foal at foot), not over 14 h.	10	5	3
SHETLAND PONY.			
STALLION, foaled in or before 1912, not over 10.4 h.	10	5	3
MARE (with foal at foot), not over 10.4 h.	10	5	3
WELSH PONY.*			
STALLION, foaled in 1912 (not exceeding 11.3 h.) or 1913 (not exceeding 11.2 h.)	10	5	3
STALLION, foaled in or before 1911, not exceeding 12 hands.	10	5	3
FILLY, foaled in 1912 (not exceeding 11.3 h.) or 1913 (not exceeding 11.2 h.)	10	5	3
MARE, foaled in or before 1911 (with foal at foot), not exceeding 12 h.	10	5	3
HUNTER RIDING CLASSES.			
MARE OR GELDING, foaled in 1911, up to from 12 to 14 st.	15	10	5
MARE OR GELDING, foaled in 1911, up to more than 14 st.	15	10	5
MARE OR GELDING, foaled in 1909 or 1910, up to from 12 to 14 st.	15	10	5
MARE OR GELDING, foaled in 1909 or 1910, up to more than 14 st.	15	10	5
HACK AND RIDING PONY CLASSES.			
MARE OR GELDING, foaled in or before 1911, not exceeding 12.2 h. To be ridden by a child born in or after 1903	10	5	3
MARE OR GELDING, foaled in or before 1911, over 12.2 and not exceeding 13.2 h. To be ridden by a child born in or after 1901	10	5	3
MARE OR GELDING, foaled in or before 1911, over 13.2 and not exceeding 15 h.	10	5	3
DRIVING CLASSES.			
To be driven in Single Harness.			
Mare or Gelding (Novice), not exceeding 14 hands.	10	5	5
Mare or Gelding (Novice), over 14 and not exceeding 15 hands.	10	5	5
Mare or Gelding (Novice), over 15 hands.	10	5	5
Mare or Gelding, not exceeding 14 hands.	10	5	5
Mare or Gelding, over 14 and not exceeding 15 hands.	10	5	5
Mare or Gelding, over 15 and not exceeding 16.2 hands.	10	5	5
Mare or Gelding, over 16.2 hands.	10	5	5

- * £30 provided by the Clydesdale Horse Society.
- * £20 provided by the Suffolk Horse Society.
- * £100 provided by a Member of the R.A.S.E.
- * £25 provided by the National Pony Society.
- * £20 provided through the Hackney Horse Society.
- * £24 provided by the Welsh Pony and Cob Society.

Price List for Nottingham Shows, 1915.

JUMPING COMPETITIONS.		Prize
1st and 2nd	3rd and 4th	
H. Mare or gelding.	20	10 5
1. Mare or gelding (Wrest Prize)		
Winner in Class H not eligible.	15	10 5
2. Mare or gelding (First Prize)		
Winners in Classes H and I not eligible.	10	5 5
3. Champion Class Mare or gelding.	20	10 5
PIT PONIES.		
TWO PONIES not over 18 h.	10	5 5
TWO PONIES over 18 and not over 24 h.	10	5 5

CATTLE (£2,510 10s.).

SHORTHORN.		Prize
1st and 2nd	3rd and 4th	
BULL, calved in 1910, 1911 or 1912	10	5 5
BULL, calved on or between Jan. 1, 1912, and March 31, 1913	10	5 5
BULL, calved on or between April 1, 1913, and Dec. 31, 1913	10	5 5
BULL, calved on or between Jan. 1, 1914, and March 31, 1914	10	5 5
BULL, calved on or between April 1, 1914, and Dec. 31, 1914	10	5 5
TWO SPECIAL PRIZES of 10l. and 5l. for the two best Bulls calved in 1914, the property of an Exhibitor residing in Nottinghamshire.		
GROUP CLASS, for the best collection of either three or four Bulls, bred by Exhibitor.	15	10 -
COW, in-milk, calved in or before 1912	10	5 3
HEIFER, in-milk, calved in 1912	10	5 3
HEIFER, calved on or between Jan. 1, 1912, and March 31, 1913	10	5 3
HEIFER, calved on or between April 1, 1913, and Dec. 31, 1913	10	5 3
HEIFER, calved on or between Jan. 1, 1914, and March 31, 1914	10	5 3
HEIFER, calved on or between April 1, 1914, and Dec. 31, 1914	10	5 3
GROUP CLASS for the best collection of either three or four Cows or Heifers, bred by Exhibitor.	15	10 -
DAIRY SHORTHORN.		
BULL, calved in 1913	10	5 3
BULL, calved in 1914	10	5 3
DAIRY COW, in-milk, calved in or before 1910.	10	5 3
DAIRY COW, in-milk, calved in 1911	10	5 3
DAIRY HEIFER, in-milk, calved in or after 1912	10	5 3
Milk Yield Prizes	10	5 3

LINCOLNSHIRE RED SHORTHORN.

1st and 2nd	3rd and 4th	
BULL, calved in 1902, 1910, 1911 or 1912	10	5 3
BULL, calved in 1913	10	5 3
BULL, calved in 1914	10	5 3
COW, in-milk, calved in or before 1911	10	5 3
COW, in-milk, calved in or before 1912	10	5 3
HEIFER, in-milk, calved in 1912	10	5 3
HEIFER, calved in 1913	10	5 3
HEIFER, calved in 1914	10	5 3
Milk Yield Prizes	10	5 3

HEREFORD.

1st and 2nd	3rd and 4th	
BULL, calved in 1910, 1911, 1912 or 1913	10	5 3
BULL, calved in 1914	10	5 3
BULL, calved in Jan. or Feb. 1914	10	5 3
BULL, calved in 1914 or after	10	5 3
COW, in-milk, calved in or before 1912	10	5 3
HEIFER, in-milk, calved in 1912	10	5 3
HEIFER, calved in 1913	10	5 3
HEIFER, calved in 1914	10	5 3

DEVON.

1st and 2nd	3rd and 4th	
BULL, calved in 1910, 1911, 1912 or 1913	10	5 3
BULL, calved in 1914	10	5 3
COW OR HEIFER, in-milk, calved in or before 1912	10	5 3
DAIRY COW, in-milk, calved in or before 1912	10	5 3
HEIFER, calved in 1913	10	5 3
HEIFER, calved in 1914	10	5 3
Milk Yield Prizes	10	5 3

SOUTH DEVON.

1st and 2nd	3rd and 4th	
BULL, calved in or before 1912	10	5 3
BULL, calved in 1914	10	5 3
COW OR HEIFER, in-milk, calved in or before 1912	10	5 3
HEIFER, calved in 1913 or 1914	10	5 3
Milk Yield Prizes	10	5 3

LONGHORN.

1st and 2nd	3rd and 4th	
BULL, calved in 1910, 1911, 1912 or 1913	10	5 3
BULL, calved in 1914	10	5 3
COW OR HEIFER, in-milk, calved in or before 1912	10	5 3
HEIFER, calved in 1913 or 1914	10	5 3
Milk Yield Prizes	10	5 3

SUSSEX.

1st and 2nd	3rd and 4th	
BULL, calved in 1910, 1911, 1912 or 1913	10	5 3
BULL, calved in 1914	10	5 3
COW OR HEIFER, in-milk, calved in or before 1912	10	5 3
HEIFER, calved in 1913	10	5 3
HEIFER, calved in 1914	10	5 3

- 1 £120 provided by the Shorthorn Society.
- 2 £10 provided by the Shorthorn Society, and £5 offered by the Nottinghamshire Agricultural Society.
- 3 £40 provided by the Dairy Shorthorn (Coates's Herd Book) Association, and £20 by the Shorthorn Society.
- 4 £30 provided by the Lincolnshire Red Shorthorn Association.
- 5 £30 provided by the Hereford Herd Book Society.
- 6 £40 provided by the Devon Cattle Breeders' Society.
- 7 £20 provided by the South Devon Herd Book Society.
- 8 £30 provided by the Longhorn Cattle Society.
- 9 £20 provided by the Sussex Herd Book Society.

Prize List for Nottingham Show, 1915.

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WELSH. ¹				JERSEY. ²			
Prizes				Prizes			
	1st	2nd	3rd		1st	2nd	3rd
BULL, calved on or after Dec. 1, 1909, and before Dec. 1, 1913.	10	5		BULL, calved 1910, 1911, or 1912	10	5	3
BULL, calved on or after Dec. 1, 1913, and before Dec. 1, 1914.	10	5		BULL, calved in 1913.	10	5	3
COW OR HEIFER, in-milk, calved before Dec. 1, 1912.	10	5		BULL, calved in 1914.	10	5	3
HEIFER, calved on or after Dec. 1, 1913, and before Dec. 1, 1914.	10	5		COW, in-milk, calved in or before 1911.	10	5	3
				HEIFER, in-milk, calved in 1912	10	5	3
				HEIFER, in-milk, calved in 1913	10	5	3
				COW OR HEIFER, in-milk, bred by Exhibitor, bred in Great Britain or Ireland.	10	5	3
				HEIFER, calved in 1914.	10	5	3
				Milk Yield Prizes.	10	5	3
RED POLL. ³				GUERNSEY. ⁴			
BULL, calved in 1910, 1911, or 1912	10	5	3	BULL, calved in 1910, 1911 or 1912	10	5	3
BULL, calved in 1913.	10	5	3	BULL, calved in 1913.	10	5	3
BULL, calved in 1914.	10	5	3	BULL, calved in 1914.	10	5	3
COW OR HEIFER, in-milk, calved in or before 1912.	10	5	3	COW, in-milk, calved in or before 1910.	10	5	3
HEIFER, calved in 1913.	10	5	3	COW OR HEIFER, in-milk, calved in 1911 or 1912.	10	5	3
HEIFER, calved in 1914.	10	5	3	HEIFER, calved in 1913.	10	5	3
Milk Yield Prizes.	10	5	3	HEIFER, calved in 1914.	10	5	3
ABERDEEN ANGUS. ⁵				Milk Yield Prizes.	10	5	3
BULL, calved on or after Dec. 1, 1909, and before Dec. 1, 1912.	10	5	3	KERRY. ⁶			
BULL, calved on or after Dec. 1, 1912, and before Dec. 1, 1913.	10	5	3	BULL, calved in 1910, 1911, 1912, or 1913.	10	5	3
BULL, calved on or after Dec. 1, 1913, and before Dec. 1, 1914.	10	5	3	COW OR HEIFER, in-milk, calved in or before 1912.	10	5	3
COW OR HEIFER, in-milk, calved before Dec. 1, 1913.	10	5	3	HEIFER, calved in 1913 or 1914.	10	5	3
HEIFER, calved on or after Dec. 1, 1912, and before Dec. 1, 1913.	10	5	3	HEIFER, calved in 1913 or 1914.	10	5	3
HEIFER, calved on or after Dec. 1, 1913, and before Dec. 1, 1914.	10	5	3	Milk Yield Prizes.	10	5	3
GALLOWAY. ⁷				DEXTER. ¹⁰			
BULL, calved on or after Dec. 1, 1909, and before Dec. 1, 1913.	10	5	3	Same as for Kerry.			
BULL, calved on or after Dec. 1, 1913, and before Dec. 1, 1914.	10	5	3	BUTTER TESTS. ¹¹			
COW OR HEIFER, in-milk, calved before Dec. 1, 1912.	10	5	3	COW, exceeding 900 lb. live weight.	15	10	5
HEIFER, calved on or after Dec. 1, 1912, and before Dec. 1, 1913.	10	5	3	COW, not exceeding 900 lb. live weight.	15	10	5
HEIFER, calved on or after Dec. 1, 1913, and before Dec. 1, 1914.	10	5	3	SHEEP (£1793).			
AYRSHIRE. ⁸				OXFORD DOWN. ¹²			
BULL, calved in or before 1914.	10	5	3	SHEARLING RAM.	10	5	3
COW OR HEIFER, in-milk.	10	5	3	RAM LAMB. ¹³	10	5	3
COW OR HEIFER, in-calf.	10	5	3	THREE RAM LAMBS.	10	5	3
Milk Yield Prizes.	10	5	3	THREE SHEARLING EWES.	10	5	3
BRITISH HOLSTEIN. ⁹				THREE EWE LAMBS.	10	5	3
BULL, calved in or before 1912.	10	5	3	SHROPSHIRE. ¹⁴			
BULL, calved in 1913.	10	5	3	TWO-SHEAR RAM.	10	5	3
BULL, calved in 1914.	10	5	3	SHEARLING RAM.	15	10	5
COW, in-milk, calved in or before 1911.	10	5	3	FIVE SHEARLING RAMS.	10	5	3
HEIFER, in-milk, calved in 1912 or 1913.	10	5	3	THREE RAM LAMBS.	10	5	3
HEIFER, calved in 1914.	10	5	3	THREE SHEARLING EWES.	10	5	3
Milk Yield Prizes.	10	5	3	THREE EWE LAMBS.	10	5	3

- ¹ £10 10s. provided by the Welsh Black Cattle Society.
- ² £30 provided by the Red Poll Cattle Society.
- ³ £20 provided by the Aberdeen Angus Cattle Society.
- ⁴ £20 provided by the Galloway Cattle Society.
- ⁵ £20 provided by the English Jersey Cattle Society.
- ⁶ £20 provided by the English Guernsey Cattle Society.
- ⁷ £20 provided by the English Kerry and Dexter Cattle Society.
- ⁸ £20 provided by the English Kerry and Dexter Cattle Society.
- ⁹ £20 provided by the English Jersey Cattle Society.
- ¹⁰ £20 provided by the English Jersey Cattle Society.
- ¹¹ Offered by the English Jersey Cattle Society.
- ¹² Offered by the Oxford Down Sheep Breeders' Association.
- ¹³ Offered by the Oxford Down Sheep Breeders' Association.
- ¹⁴ £25 provided by the Shropshire Sheep Breeders' Association.

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SOUTHDOWN.				LINCOLN.*			
	1st	2nd	3rd		1st	2nd	3rd
TWO-SHEAR RAM	10	5	3	TWO-SHEAR RAM	10	5	3
SHEARLING RAM	10	5	3	SHEARLING RAM	10	5	3
THREE SHEARLING RAMS	10	5	3	FIVE SHEARLING RAMS	15	10	
THREE RAM LAMBS	10	5	3	THREE RAM LAMBS	10	5	3
THREE SHEARLING EWES	10	5	3	THREE SHEARLING EWES	10	5	3
THREE EWE LAMBS	10	5	3	THREE EWE LAMBS	10	5	3
				THREE YEARLING EWES	10	5	3
				shows in their wool			
HAMPSHIRE DOWN.				LEICESTER.*			
	1st	2nd	3rd		1st	2nd	3rd
TWO-SHEAR RAM	10	5	3	SHEARLING RAM	10	5	3
SHEARLING RAM	10	5	3	THREE RAM LAMBS	10	5	3
RAM LAMB	10	5	3	THREE SHEARLING EWES	10	5	3
THREE RAM LAMBS	10	5	3	THREE EWE LAMBS	10	5	3
THREE SHEARLING EWES	10	5	3				
THREE EWE LAMBS	10	5	3				
SUFFOLK.				BORDER LEICESTER. ¹⁰			
	1st	2nd	3rd		1st	2nd	3rd
TWO-SHEAR RAM	10	5	3	RAM TWO-SHEAR and upwards	10	5	3
SHEARLING RAM	10	5	3	SHEARLING RAM	10	5	3
RAM LAMB	10	5	3	SHEARLING EWE	10	5	3
THREE RAM LAMBS	10	5	3				
THREE SHEARLING EWES	10	5	3				
THREE EWE LAMBS	10	5	3				
DORSET DOWN. ⁴				WENSLEYDALE. ⁵			
	1st	2nd	3rd		1st	2nd	3rd
SHEARLING RAM	10	5	3	RAM TWO-SHEAR and upwards entered or eligible for entry in the Wensleydale Blue-faced Flock Book	10	5	3
THREE RAM LAMBS	10	5	3	SHEARLING RAM	10	5	3
THREE SHEARLING EWES	10	5	3	THREE SHEARLING RAMS entered or eligible for entry in the Wensleydale Blue-faced Flock Book	10	5	3
				THREE SHEARLING EWES	10	5	3
DORSET HORN. ⁵				LONK. ¹³			
	1st	2nd	3rd		1st	2nd	3rd
SHEARLING RAM, dropped after Nov. 1, 1913	10	5	3	RAM SHEARLING and upwards	10	5	3
THREE RAM LAMBS, dropped after Nov. 1, 1914	10	5	3	THREE SHEARLING EWES	10	5	3
THREE SHEARLING EWES, dropped after Nov. 1, 1913	10	5	3				
THREE EWE LAMBS, dropped after Nov. 1, 1914	10	5	3				
RYELAND. ⁶				DERBYSHIRE GRITSTONE.			
	1st	2nd	3rd		1st	2nd	3rd
RAM TWO-SHEAR and upwards	10	5	3	RAM SHEARLING and upwards	10	5	3
SHEARLING RAM	10	5	3	THREE SHEARLING EWES	10	5	3
THREE RAM LAMBS	10	5	3				
THREE SHEARLING EWES	10	5	3				
THREE EWE LAMBS	10	5	3				
KERRY HILL (WALES). ⁷				KENT OR ROMNEY MARSH. ¹⁵			
	1st	2nd	3rd		1st	2nd	3rd
RAM TWO-SHEAR and upwards	10	5	3	Same as for Shropshires.			
SHEARLING RAM	10	5	3				
THREE RAM LAMBS	10	5	3				
THREE SHEARLING EWES	10	5	3				
THREE EWE LAMBS	10	5	3				
COTSWOLD. ¹⁴				DEVON LONG-WOOL.			
	1st	2nd	3rd		1st	2nd	3rd
Same as for Leicesters.				Same as for Derbyshire Gritstone.			

¹ Offered by the Southdown Sheep Society.

² Offered by the Hampshire Down Sheep Breeders' Association.

³ Offered by the Suffolk Sheep Society.

⁴ £15 provided by the Dorset Down Sheep Breeders' Association.

⁵ £18 provided by the Dorset Horn Sheep Breeders' Association.

⁶ £27 provided by the Ryeland Flock Book Society.

⁷ £10 provided by the Kerry Hill (Wales) Flock Book Society.

⁸ £24 provided by the Lincoln Long-Wool Sheep Breeders' Association.

⁹ £18 provided by the Leicester Sheep Breeders' Association.

¹⁰ £18 provided by the Society of Border Leicester Sheep Breeders.

¹¹ £18 provided by the Wensleydale Blue-faced Sheep Breeders' Association.

¹² £5 provided by the Lonk Sheep Breeders' Association.

¹³ £48 provided by the Kent or Romney Marsh Sheep Breeders' Association.

¹⁴ £18 provided by the Cotswold Sheep Society.

Prize List for Nottingham Show, 1915. clvii

	Prize		
	1st	2nd	3rd
SOUTH DEVON.¹	£	£	£
TWO-SHEAR RAM.	10	5	-
SHEARLING RAM.	10	5	-
THREE RAM LAMBS.	10	5	-
THREE SHEARLING EWES.	10	5	-
THREE EWE LAMBS.	10	5	-

DARTMOOR.²			
RAM, TWO-SHEAR and up-wards.	10	5	-
SHEARLING RAM.	10	5	-
THREE SHEARLING EWES.	10	5	-

EXMOOR HORN.³			
RAM, TWO-SHEAR and upwards.	10	5	3
SHEARLING RAM.	10	5	3
THREE SHEARLING EWES.	10	5	3

CHEVIOT.⁴
Same as for Border Leicesters.

HERDWICK.⁵
Same as for Dartmoor.

WELSH MOUNTAIN.
Same as for Derbyshire Gristons.

BLACK-FACED MOUNTAIN.			
RAM, SHEARLING and upwards.	10	-	-
SHEARLING EWE.	10	-	-

PIGS (£282 5s.).			
Large White ⁶			
Middle White ⁷			
Tamworth ⁸			
Berkshire ⁹			
Large Black ¹⁰			
Lincolnshire Curly-Coated ¹¹			

In each of the above Breeds the following prizes will be given:—

	1st	2nd	3rd
	£	£	£
BOAR, farrowed in 1911, 1912, or 1913.	10	5	3
BOAR, farrowed in 1914.	10	5	3
BOAR, farrowed in 1915.	10	5	3
BREEDING SOW, farrowed in 1911, 1912, or 1913.	10	5	3
SOW, farrowed in 1914.	10	5	3
THREE SOW PIGS, farrowed in 1915.	10	5	3

- ¹ £20 provided by the South Devon Flock Book Association.
- ² £15 provided by the Dartmoor Sheep Breeders' Association.
- ³ £18 provided by the Exmoor Horn Sheep Breeders' Society.
- ⁴ £18 provided by Breeders of Cheviot Sheep.
- ⁵ £15 provided by Breeders of Herdwick Sheep.
- ⁶ £72 provided by the National Pig Breeders' Association.
- ⁷ £18 provided by the British Berkshire Society.
- ⁸ £18 provided by the Large Black Pig Society.
- ⁹ £18 provided by the Lincolnshire Curly-Coated Pig Breeders' Association.
- ¹⁰ Offered by the Dorking Club.
- ¹¹ Offered by the Sussex Poultry Club.
- ¹² Offered by the Malines Poultry Club.
- ¹³ Offered by the Campine Club.
- ¹⁴ Offered by the White Wyandotte Club.
- ¹⁵ Offered by the Black Wyandotte Club.
- ¹⁶ Offered by the Partridge Wyandotte Club.
- ¹⁷ Offered by the Buff Orpington Club.
- ¹⁸ Offered by the White Orpington Club.
- ¹⁹ Offered by the Black Orpington Club.

POULTRY (£475 3s.).

Prizes of 30s., 20s., and 10s. are offered in each class for the best COCK, HEN, COCKEREL, and PULLET of the following Breeds:—

Dorking, Silver Grey.
Dorking, Dark Coloured.

TWO PRIZES: 11. 1s. each, for the best Silver Grey and Dark Coloured Dorking.¹⁰

Langshan.
Grand Langshan.
Brahma or Cochin.
Sussex, Red.
Sussex, Light.
Sussex, Speckled.
Sussex, Brown.

FOUR SERVIETTE RINGS: (1) for best Red, (2) for best Light, (3) for best Speckled Sussex.¹¹

Houdan.
Favorable, Salmon.
Favorable, White.
Maline.

SILVER MEDAL for the best Maline.¹²

Campine.
SILVER MEDAL for best Campine.¹³

Wyandotte, White.
A SPECIAL PRIZE of 10s. and the "Visiting Cup" for the best White Wyandotte.¹⁴

Wyandotte, Black.
A SPECIAL PRIZE of 10s. for the best Black Wyandotte.¹⁵

Wyandotte, Gold or Silver Laced.
Wyandotte, Partridge.

A SPECIAL PRIZE for the best Partridge Wyandotte.¹⁶

Wyandotte, Columbian.
Wyandotte, Blue.
Wyandotte, any other variety.
Orpington, Buff.

A PIECE OF PLATE, value 8s. 6d., for the best Buff Orpington.¹⁷

Orpington, White.
TWO SERVIETTE RINGS for the best White Orpingtons.¹⁸

Orpington, Black.
A SPECIAL PRIZE for the best Black Orpington.¹⁹

CIVIL Prize List for Nottingham Show, 1915.

POULTRY.

Orpington, Blue.
TWO SPECIAL PRIZES of 10s. each
for the best Blue Orpingtons.

Orpington, Spangled.
A SPECIAL PRIZE for the best
Spangled Orpington.

Orpington, any other colour.

British Rhode Island Red.

A SPECIAL PRIZE for the best
British Rhode Island Red.

Game, Old English.

Game, Indian.

Game, Modern.

Game, Black Sumatra.

Minors.

Leghorn, White.

Leghorn, Brown.

Leghorn, Black.

Leghorn, any other colour.

Sililian Buttercup.

TWO SPECIAL PRIZES for the best
Sililian Buttercups.

Plymouth Rock, Barred.

A SPECIAL PRIZE for the Best
Barred Plymouth Rock.

Plymouth Rock, Buff.

A SPECIAL PRIZE for the best
Buff Plymouth Rock.

Plymouth Rock, White.

Plymouth Rock, any other colour.

Scots Dumpy.

Ancona.

Yokohama.

A SILVER MEDAL for the best
Yokohama.

Any other Breed.

DUCKS.

DRAKE OR YOUNG DRAKE.

DUCK OR DUCKLING.

Aylesbury.

Brown.

Indian Runner.

TWO SPECIAL PRIZES of 10s. each
for the best Indian Runners.

Buff Orpington.

A SPECIAL PRIZE of 11. 1s. for the
best Buff Orpington.

Any other breed.

GEESE.

GANDER AND GOOSE.

Emden.

Toulouse.

TURKEYS.

Cock and Hen.

White.

Any other variety.

BANTAMS.

COCK OR COCKEREL.

Sabright.

Wyandotte.

Scotch Grey.

Old English Game.

Modern Game.

Yokohama.

A SILVER MEDAL for the best
Yokohama.

Japanese.

A SPECIAL PRIZE for the best
Japanese Bantam.

Any other variety.

PRODUCE (£300 12s. 6d.).

BUTTER.

Prices

TWO POUNDS OF FRESH

BUTTER, without any salt,

made up in plain pounds

from the milk of Channel

Island, Devon, or South Devon

Cattle and their crosses

4 2 1

TWO POUNDS OF FRESH

BUTTER, without any salt,

made up in plain pounds

from the milk of Cattle of any

breed or cross other than

those mentioned

4 2 1

TWO POUNDS OF FRESH

BUTTER, slightly salted, made

up in plain pounds, from the

milk of Channel Island, Devon,

or South Devon Cattle and

their crosses

4 2 1

TWO POUNDS OF FRESH

BUTTER, slightly salted, made

up in plain pounds, from the

milk of Cattle of any breed or

cross other than those men-

tioned

4 2 1

THREE POUNDS OF FRESH

BUTTER, slightly salted, made

up in pounds in the

most attractive marketable

designs. The designs as well

as the quality will be taken

into account by the Judge

4 2 1

THREE POUNDS OF FRESH

BUTTER, slightly salted, made

up in pounds and packed in

non-returnable boxes for

transmission by rail or parcel

post. The packing, the box,

and the quality will be taken

into account by the Judge who

will open the exhibits

4 2 1

- 1 Offered by the Blue Orpington Club.
- 2 Offered by the Spangled Orpington Club.
- 3 Offered by the British Rhode Island Red Club.
- 4 Offered by the International Buttercup Club.
- 5 Offered by the Barred Plymouth Rock Club.
- 6 Offered by the Buff Plymouth Rock Club.
- 7 Offered by the Yokohama Club.
- 8 Offered by the Indian Runner Duck Club.
- 9 Offered by the Buff Orpington Duck Club.
- 0 Offered by the Yokohama Club.
- 1 Offered by the Japanese Bantam Club.

Prize List for Nottingham Show, 1915.

olix

CHEESE (made in 1915.)	Prizes		
	1st	2nd	3rd
THREE CHEDDAR, not less than 50 lb. each	5	3	2
THREE CHEDDAR TRUCKLES, not less than 50 lb. each	4	2	1
THREE CHESHIRE (coloured), of not less than 50 lb. each	5	3	2
THREE CHESHIRE (uncoloured), of not less than 50 lb. each	5	3	2
THREE LEICESTERSHIRE	4	2	1
THREE STAFFORDSHIRE, or DERBYSHIRE	4	2	1
THREE STILTON	4	2	1
THREE WENSLEYDALE (Stilton shape)	4	2	1
THREE CAKESHILL	4	2	1

BACON & HAMS.

TWO SIDES OF BACON, pale dried, Wiltshire shape, with Ham attached	3	2	1
TWO SIDES OF BACON, smoke dried, Wiltshire shape, with Ham attached	3	2	1
TWO SIDES OF BACON, pale dried, Wiltshire shape, hamless	3	2	1
TWO SIDES BACON smoke dried, Wiltshire shape, hamless	3	2	1
TWO SIDES OF BACON, cured in the Cumberland style, hamless	3	2	1
TWO HAMS, pale dried, not exceeding 14 lb. weight	3	2	1
TWO HAMS, smoke dried, not exceeding 14 lb. weight	3	2	1
TWO HAMS, pale dried, exceeding 14 lb. weight	3	2	1
TWO HAMS, smoke dried, exceeding 14 lb. weight	3	2	1

CIDER AND PERRY.

Cask of DRY CIDER, made in 1914	3	2	1
Cask of SWEET CIDER, made in 1914	3	2	1
Cask of CIDER, made previous to 1914	3	2	1
ONE DOZ. DRY CIDER, made in 1914	3	2	1
ONE DOZ. SWEET CIDER, made in 1914	3	2	1
ONE DOZ. CIDER, made previous to 1914	3	2	1
ONE DOZ. DRY PERRY	3	2	1
ONE DOZ. SWEET PERRY	3	2	1
A CHALLENGE CUP for the best exhibit of Cider.			

BOTTLED FRUIT.

Three varieties of FRUIT bottled in syrup. To be selected from: Red or Yellow Plums, Greengages, Pears, Cherries and Raspberries	30	20	10
Six varieties of FRUIT bottled in water. To be selected from: Red Plums, Yellow Plums, Victoria Plums, Greengages, Pears, Apricots, Damsons and Cherries	60	40	20

BOTTLED FRUIT—

continued.

Six varieties of SOFT FRUIT bottled in water. To be selected from: Gooseberries, Raspberries, Loganberries, Blackberries, Black Currants, Red Currants, Raspberries and Red Currants mixed	Prizes		
	1st	2nd	3rd
Three varieties of FRUIT bottled in water. To be selected from: Red or Victoria Plums, Yellow Plums, Pears, Greengages, Damsons and Cherries	60	40	20
Three varieties of SOFT FRUIT bottled in water. To be selected from: Gooseberries, Raspberries, Black Currants, Loganberries, Blackberries, Raspberries and Red Currants mixed	30	20	10

WOOL (of 1915 Clip).

Three Fleeces in each entry.

PURE BREED CLASSES.

	1st	2nd	3rd
OXFORD DOWN	3	2	1
SHERPSHIRE	3	2	1
SOUTHDOWN	3	2	1
HAMPSHIRE DOWN	3	2	1
DORSET HORN	3	2	1
RYELAND	3	2	1
LINCOLN	3	2	1
LEICESTER	3	2	1
BOURNE LEICESTER	3	2	1
WENSLEYDALE BLUE-FACED	3	2	1
KENT OR ROMNEY MARSH (Hams)	3	2	1
Do. (not Hams)	3	2	1
COTSWOLD	3	2	1
DARTMOOR	3	2	1
EXMOOR HORN	3	2	1
WELSH MOUNTAIN	3	2	1

CROSS BREED CLASSES.

First Cross between two distinct breeds of Short Wool	3	2	1
First Cross between two distinct breeds of Long Wool	3	2	1
First Cross of any Long and Short Wool	3	2	1
First Cross of pure bred sheep of which one must be Mountain or Moorland	3	2	1

HIVES, HONEY, AND BEE APPLIANCES.

Collection of HIVES	—	—	—
FRAME HIVE	—	—	—
Do. for Cottagers use	15	10	—
HONEY EXTRACTOR	15	10	5
OBSERVATORY HIVE (not less than 3 frames)	15	10	5
USEFUL APPLIANCES	5	—	—

HONEY—(Local Classes).

Open to members of Nottinghamshire Bee Keepers' Association only.

	1st	2nd	3rd
DISPLAY OF HONEY	20/-	15/-	10/-
COMB HONEY	10/-	7/6	6/-
EXTRACTED, LIGHT COLOURED HONEY	10/-	7/6	3/6

- 1 Offered by the Cider Growers of the West of England.
2 The Second and Third Prizes are provided by the respective Flock Book Societies.

Price List for Nottingham Show, 1915.

HONEY		1st	2nd
HEATH AND DARE			
COLONIAL HONEY	1 lb.	7s	5s
ORANGEATED HONEY	1 lb.	7s	5s
BEEHIVE	1 lb.	7s	5s
HONEY (Open Competition)			
For the purpose of Classification Honey of the United Kingdom has been divided into two Districts:-			
1. Counties of: Cheshire, Cumberland, Derby, Durham, Hereford, Lancashire, Leicestershire, Lincoln, Monmouth, Northumberland, Nottingham, Rutland, Salop, Shropshire, Warwick, Westmorland, Worcester, Yorkshire, the Isle of Man, Ireland, Scotland, or Wales.			
2. Counties of: Bedford, Bucks, Essex, Cambridge, Cornwall, Devon, Dorset, Essex, Gloucester, Hampshire, Kent, Hants, Isle of Wight, Kent, Middlesex, Norfolk, Northampton, Oxford, Somerset, Suffolk, Surrey, Sussex, or Wiltshire.			
For each of the above Districts the following four Classes and Prizes for Honey of any year, have been provided:-			
1. BOTTLES OF COMB HONEY, about 12 lb.		1st	2nd
2. REFRACTED LIGHT-COLOURED HONEY, about 12 lb.		15	10
3. COLLAGED MEDIUM ORDINARY COLOURED HONEY, about 12 lb.		15	10
4. CRANFLEET HONEY, about 12 lb.		15	10
MISCELLANEOUS.			
1. BOTTLES OF COMB HONEY, for one year.		15	10
2. REFRACTED HONEY, about 12 lb.		15	10
3. CRANFLEET HONEY, about 12 lb.		15	10
4. REFRACTED HONEY, about 12 lb.		15	10
5. CRANFLEET HONEY, about 12 lb.		15	10
6. REFRACTED HONEY, about 12 lb.		15	10
7. CRANFLEET HONEY, about 12 lb.		15	10
8. REFRACTED HONEY, about 12 lb.		15	10
9. CRANFLEET HONEY, about 12 lb.		15	10
10. REFRACTED HONEY, about 12 lb.		15	10
11. CRANFLEET HONEY, about 12 lb.		15	10
12. REFRACTED HONEY, about 12 lb.		15	10
13. CRANFLEET HONEY, about 12 lb.		15	10
14. REFRACTED HONEY, about 12 lb.		15	10
15. CRANFLEET HONEY, about 12 lb.		15	10
16. REFRACTED HONEY, about 12 lb.		15	10
17. CRANFLEET HONEY, about 12 lb.		15	10
18. REFRACTED HONEY, about 12 lb.		15	10
19. CRANFLEET HONEY, about 12 lb.		15	10
20. REFRACTED HONEY, about 12 lb.		15	10
21. CRANFLEET HONEY, about 12 lb.		15	10
22. REFRACTED HONEY, about 12 lb.		15	10
23. CRANFLEET HONEY, about 12 lb.		15	10
24. REFRACTED HONEY, about 12 lb.		15	10
25. CRANFLEET HONEY, about 12 lb.		15	10
26. REFRACTED HONEY, about 12 lb.		15	10
27. CRANFLEET HONEY, about 12 lb.		15	10
28. REFRACTED HONEY, about 12 lb.		15	10
29. CRANFLEET HONEY, about 12 lb.		15	10
30. REFRACTED HONEY, about 12 lb.		15	10
31. CRANFLEET HONEY, about 12 lb.		15	10
32. REFRACTED HONEY, about 12 lb.		15	10
33. CRANFLEET HONEY, about 12 lb.		15	10
34. REFRACTED HONEY, about 12 lb.		15	10
35. CRANFLEET HONEY, about 12 lb.		15	10
36. REFRACTED HONEY, about 12 lb.		15	10
37. CRANFLEET HONEY, about 12 lb.		15	10
38. REFRACTED HONEY, about 12 lb.		15	10
39. CRANFLEET HONEY, about 12 lb.		15	10
40. REFRACTED HONEY, about 12 lb.		15	10
41. CRANFLEET HONEY, about 12 lb.		15	10
42. REFRACTED HONEY, about 12 lb.		15	10
43. CRANFLEET HONEY, about 12 lb.		15	10
44. REFRACTED HONEY, about 12 lb.		15	10
45. CRANFLEET HONEY, about 12 lb.		15	10
46. REFRACTED HONEY, about 12 lb.		15	10
47. CRANFLEET HONEY, about 12 lb.		15	10
48. REFRACTED HONEY, about 12 lb.		15	10
49. CRANFLEET HONEY, about 12 lb.		15	10
50. REFRACTED HONEY, about 12 lb.		15	10
51. CRANFLEET HONEY, about 12 lb.		15	10
52. REFRACTED HONEY, about 12 lb.		15	10
53. CRANFLEET HONEY, about 12 lb.		15	10
54. REFRACTED HONEY, about 12 lb.		15	10
55. CRANFLEET HONEY, about 12 lb.		15	10
56. REFRACTED HONEY, about 12 lb.		15	10
57. CRANFLEET HONEY, about 12 lb.		15	10
58. REFRACTED HONEY, about 12 lb.		15	10
59. CRANFLEET HONEY, about 12 lb.		15	10
60. REFRACTED HONEY, about 12 lb.		15	10
61. CRANFLEET HONEY, about 12 lb.		15	10
62. REFRACTED HONEY, about 12 lb.		15	10
63. CRANFLEET HONEY, about 12 lb.		15	10
64. REFRACTED HONEY, about 12 lb.		15	10
65. CRANFLEET HONEY, about 12 lb.		15	10
66. REFRACTED HONEY, about 12 lb.		15	10
67. CRANFLEET HONEY, about 12 lb.		15	10
68. REFRACTED HONEY, about 12 lb.		15	10
69. CRANFLEET HONEY, about 12 lb.		15	10
70. REFRACTED HONEY, about 12 lb.		15	10
71. CRANFLEET HONEY, about 12 lb.		15	10
72. REFRACTED HONEY, about 12 lb.		15	10
73. CRANFLEET HONEY, about 12 lb.		15	10
74. REFRACTED HONEY, about 12 lb.		15	10
75. CRANFLEET HONEY, about 12 lb.		15	10
76. REFRACTED HONEY, about 12 lb.		15	10
77. CRANFLEET HONEY, about 12 lb.		15	10
78. REFRACTED HONEY, about 12 lb.		15	10
79. CRANFLEET HONEY, about 12 lb.		15	10
80. REFRACTED HONEY, about 12 lb.		15	10
81. CRANFLEET HONEY, about 12 lb.		15	10
82. REFRACTED HONEY, about 12 lb.		15	10
83. CRANFLEET HONEY, about 12 lb.		15	10
84. REFRACTED HONEY, about 12 lb.		15	10
85. CRANFLEET HONEY, about 12 lb.		15	10
86. REFRACTED HONEY, about 12 lb.		15	10
87. CRANFLEET HONEY, about 12 lb.		15	10
88. REFRACTED HONEY, about 12 lb.		15	10
89. CRANFLEET HONEY, about 12 lb.		15	10
90. REFRACTED HONEY, about 12 lb.		15	10
91. CRANFLEET HONEY, about 12 lb.		15	10
92. REFRACTED HONEY, about 12 lb.		15	10
93. CRANFLEET HONEY, about 12 lb.		15	10
94. REFRACTED HONEY, about 12 lb.		15	10
95. CRANFLEET HONEY, about 12 lb.		15	10
96. REFRACTED HONEY, about 12 lb.		15	10
97. CRANFLEET HONEY, about 12 lb.		15	10
98. REFRACTED HONEY, about 12 lb.		15	10
99. CRANFLEET HONEY, about 12 lb.		15	10
100. REFRACTED HONEY, about 12 lb.		15	10

FARM PRIZES (2000)

The following Prizes are offered for the best managed Farms in Nottinghamshire, Derbyshire and Leicestershire.

- CLASS I.—ARABLE FARM, 400 acres or over, of which, approximately, two-thirds must be arable. 1st Prize, 100l.; 2nd Prize, 50l.; 3rd Prize, 10l. (Two entries).
- CLASS II.—ARABLE FARM, 200 acres and under 400 acres, of which, approximately, two-thirds must be arable. 1st Prize, 60l.; 2nd Prize, 30l.; 3rd Prize, 10l. (Three entries).
- CLASS III.—ARABLE FARM, 50 acres and under 200 acres, of which, approximately, two-thirds must be arable. 1st Prize, 40l.; 2nd Prize, 20l.; 3rd Prize, 5l. (Six entries).
- CLASS IV.—GRAZING OR DAIRY FARM, 400 acres or over, of which, approximately, two-thirds must be permanent grass. 1st Prize, 100l.; 2nd Prize, 50l.; 3rd Prize, 10l. (Four entries).
- CLASS V.—GRAZING OR DAIRY FARM, 200 acres, and under 400 acres, of which approximately, two-thirds must be permanent grass. 1st Prize, 60l.; 2nd Prize, 30l.; 3rd Prize, 10l. (Two entries).
- CLASS VI.—GRAZING OR DAIRY FARM, 50 acres, and under 200 acres, of which approximately, two-thirds must be permanent grass. 1st Prize, 40l.; 2nd Prize, 20l.; 3rd Prize, 5l. (Four entries).

NOTE.—The acreage of the Farms in Classes I. to VI. is exclusive of Sheep Run.

DOG SHOW.

The National Terrier Club will hold a Championship Terrier Show within the Showyard, on Thursday and Friday, July 1st and 2nd.

PRINCIPAL ADDITIONS TO THE LIBRARY

The name of the donor, or the mode of acquisition, appears in Italics after the title of each work.

- ADAMS, O., and E. SAVILL. The Land Retort. London, 1914. *Publishers*
- BENNETT, Whitford E. Inorganic Plant Poisons and Stimulants. Cambridge, 1914. *Camb. Univ. Press*
- CHAPMAN, H. H. Forest Valuation. New York, 1915. *Publishers*
- CHENEY, M. J., and J. P. WENTLING. The Farm Woodlot. New York, 1914. *Publishers*
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- DIXON, Henry, H. Transpiration and the Ascent of Sap in Plants. London, 1914. *Publishers*
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- PIPER, Charles V. Forage Plants and their Culture. New York, 1914. *Publishers*
- RECORD, Samuel J. Mechanical Properties of Wood. New York, 1914. *Publishers*
- ROBINSON, William. Home Landscapes. London, 1914. *Author*
- ROTHAMSTED Memoirs on Agricultural Science. Harpenden, 1914. *Board of Agriculture and Fisheries*

- SHINGLAND, the Rev. M. V. and Cyrus B. OSOBY. *Manual of Fruit Insects.* New York, 1914. *Publishers*
- TWENTIETH CENTURY IMPRESSIONS OF CHINA. Various writers. London, 1914. *Publishers*
- WIDSON, John A. *The Principles of Irrigation Practice.* New York, 1914. *Publishers*
- WRIGHTSON, John, and J. G. NEWHAM. *Agriculture, Theoretical and Practical.* London, 1914. *Publishers*
- YOUNG, Arthur.
- Agriculture of Essex.* 2 vols. 1807.
 - Agriculture of Lincolnshire.* 1808.
 - Agriculture of Norfolk.* 1804.
 - Agriculture of Suffolk.* 1804.
 - Agricultural Survey of Lincolnshire.* By Thomas Stone. 1800.
 - Essay on Manures.* 1804.
 - Farmer's Calendar.* 1822.
 - Farmer's Letters to the People of England.* 1st ed. 1767.
 - do. 2nd ed. 1768.
 - Modern Improvements in Agriculture.* 3 vols. 1774.
 - Philosophical Survey of the South of Ireland.* 1777.
 - Political Arithmetic.* 1774.
 - Six Weeks' Tour through the Southern Counties of England and Wales.* 2nd ed. 1769.
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 - Six Months' Tour through the North of England.* 4 vols. 1771.
 - Tour in Ireland.* 2 vols. 1780.
 - Travels in France.* 2 vols. 1792.
 - View of the Agriculture of Oxfordshire.* 1809.
 - Voyages en France.* 3 vols. 1794.

[The above works by Arthur Young were presented to the Society's Library by Mr. W. Robinson, of Gravetye Manor, East Grinstead. They are rendered more valuable by the fact that most of them contain Young's own book-plate, and many notes in his handwriting.]

The Society is indebted to numerous Government Departments, both at home and abroad, to Boards of Agriculture, Agricultural and Breed Societies, and kindred institutions, for copies of their Annual Reports, Journals, Stud, Herd, and Flock Books, Proceedings, Transactions, Bulletins, and other documents received regularly for the library in exchange for copies of the Journal, as well as to the Editors of many agricultural and general papers for the current numbers of their publications, which are placed for reference in the Reading Room.

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Halve the heap obtained in either of these ways, take one half (rejecting the other) and mix again rapidly, flattening down with the shovel any lumps that appear. Repeat this operation until at least only some three or four pounds are left.

From this fill three flasks, holding from 1 lb. to 1 lb. each, mark, fasten up and seal each of these. Send one for analysis, and retain the others for reference.

Or, the manure may be put into glass bottles provided with well-fitting corks; the bottles should be labelled and the corks sealed down. The sample sent for analysis can be packed in a wooden box and sent by post or rail.

When manures are delivered in bulk, portions should be successively drawn from different parts of the bulk, the heap being turned over now and again. The portions drawn should be thoroughly mixed, subdivided, and, finally, samples should be taken as before, except that when the manure is coarse and bulky it is advisable to send larger samples than when it is in a finely divided condition.

Lined, Cotton, and other Feeding Cakes.—If a single cake be taken, three strips should be broken out right across the cake, and from the middle portion of it, one piece to be sent for analysis, and the other two retained for reference. Each of the three pieces should be marked, wrapped in paper, fastened up, and sealed. The piece forwarded for analysis can be sent by post or rail.

A more satisfactory plan is to select four to six cakes from different parts of the delivery, then break off a piece about four inches wide from the middle of each cake, and pass these pieces through a cake-breaker. The broken cake should then be well mixed and three samples of about 1 lb. each should be taken and kept in tins or bags, duly marked, fastened, and sealed as before. One of these lots should be sent for analysis, the remaining two being kept for reference. It is advisable also with the broken pieces to send a small strip from an unbroken cake.

Feeding Meals, Grain, &c.—Handfuls should be drawn from the centre of half a dozen different bags of the delivery; these lots should then be well mixed, and three 1-lb. tins or bags filled from the heap, each being marked, fastened up, and sealed. One sample is to be forwarded for analysis and the others retained for reference.

Soils.—Have a wooden box made 8 inches in length and width, and from 9 to 12 inches deep, according to the depth of soil and subsoil of the field. Mark out in the field a space of about 12 inches square; dig round in a slanting direction a trench, so as to leave undisturbed a block of soil and its subsoil 9 to 12 inches deep; trim this block to make it fit into the wooden box, invert the open box over it, press down firmly, then make it to fit into the wooden box, and lift it up, gently turn over the box, nail on the lid, pass a spade under the box and lift it up, gently turn over the box, nail on the lid, and send by rail. The soil will then be received in the position in which it is found in the field.

In the case of very light, sandy, and porous soils, the wooden box may be at once inverted over the soil, forced down by pressure, and then dug out.

Waters.—Samples of water are best sent in glass-stoppered Winchester bottles holding half a gallon. One such bottle is sufficient for a single sample. Care should be taken to have these scrupulously clean. In taking a sample of water for analysis it is advisable to reject the first portion drawn or pumped, so as to obtain a sample of it is water when in ordinary flow. The bottle should be rinsed out with the water that is to be analysed, and it should be filled nearly to the top. The stopper should be secured with string, or be tied over with linen or soft leather. The sample can then be sent carefully packed either in a wooden box with sawdust, &c., or in a hamper with straw.

Milk.—A pint bottle should be sent in a wooden box.

GENERAL INSTRUCTIONS. Time for Taking Samples.—All samples, both of fertilisers and feeding stuffs, should be taken as soon after their delivery as possible, and should reach the Analyst within ten days after delivery of the article. In every case it is advisable that the Analyst's certificate be received before a fertiliser is sown or a feeding stuff is given to stock.

Procedure in the Event of the Vendor wishing Fresh Samples to be Drawn.—Should a purchaser find that the Analyst's certificate shows a fertiliser or feeding stuff not to come up to the guarantee given him, he may inform the vendor of the result and complain accordingly. He should then send to the vendor one of the two samples which he has kept for reference. If, however, the vendor should demand that a fresh sample be drawn, the purchaser must allow this, and also give the vendor an opportunity of being present, either in person or through a representative whom he may appoint. In this case three samples should be taken in the presence of both parties with the same precautions as before described, each of which should be duly packed up, labelled and sealed by both parties. One of these is to be given to the vendor, one is to be sent to the Analyst, and the third is to be kept by the purchaser for reference or future analysis if necessary.

Recommendations to Purchasers of Fertilisers and Feeding Stuffs.

Purchasers are recommended in all cases to insist on having an INVOICE, and to see that the invoice contains the following particulars:

- (1) The name of the Fertiliser.
- (2) Whether the Fertiliser is naturally compounded or not.
- (3) The *outstanding analysis* of the Fertiliser in respect of its principal fertilising ingredients.
- (4) The name of the Fertiliser.
- (5) The description of the article, whether it has been prepared (a) from one substance (or seed, or (b) from more than one substance or seed.
- (6) The percentages of oil and albuminoids guaranteed.

For example:

- (a) An invoice describing an article as "Linseed Cake" implies a warranty that the article is pure, i.e., is prepared from linseed only; "Cotton Cake" (whether decorticated or undecorticated), and "Rape Cake" (for feeding purposes), would come under a similar category.

Purchasers are reminded that the use of such terms as "35 per cent." "Oil Cake" &c. affords no security against adulteration. The adoption of the ORDER FORM issued by the Society is therefore strongly recommended.

- (b) In the case of a Compound Cake or Feeding Stuff, a Vendor is compelled by the Fertilisers and Feeding Stuffs Act of 1906 to state the percentages of oil and albuminoids guaranteed, and that it is prepared from more than one substance, but he is not required to specify the particular materials used in its preparation. Purchasers are recommended, therefore, to buy Mixed Feeding Cakes, Meals, &c. with a guaranteed analysis. Any statements in the invoice as to the component parts of such Mixed Cake or Meal will take effect as a warranty, as also will any statements in an invoice, circular, or advertisement as to the percentages of nutritive and other ingredients in any article sold for use as food for cattle.

Members of the Society are strongly recommended not only to see that the invoices given to them accurately describe the goods they have ordered, but to make all their orders subject to the *Analysis and Report of the Consulting Chemist of the Royal Agricultural Society of England*. Copies of a Form of Order (see page v.) for this purpose may be obtained on application to the Secretary.

Attention is particularly directed to the recommendations below as to the qualities of Fertilisers and Feeding Stuffs which purchasers should demand.

Conditions of Purchase and Sale.

FERTILISERS.

Raw Bones, Bone-meal, or Bone-dust to be guaranteed "PURE" and to contain not less than 45 per cent. of Phosphate of Lime, and not less than 4 per cent. of Ammonia.

Steamed or "Dolomiticized" Bones to be guaranteed "PURE," and to contain not less than 55 per cent. of Phosphate of Lime, and not less than 1 per cent. of Ammonia.

Mineral Superphosphate of Lime to be guaranteed to contain a certain percentage of "Soluble Phosphate." (From 25 to 28 per cent. of Soluble Phosphate is an ordinarily good quality.)

Decolored Bones to be guaranteed to be "made from raw bone and acid only," and to be sold as containing stated minimum percentages of Soluble Phosphate, Insoluble Phosphates, and Ammonia.

Compound Artificial Manures, Bone Manure, Bone Composts, &c. to be sold by analysis stating the minimum percentages of Soluble Phosphate, Insoluble Phosphates, and Ammonia contained.

Basis Slag to be guaranteed to be sufficiently finely ground that 80 to 90 per cent. passes through a sieve having 10,000 meshes to the square inch, and to contain a certain percentage of Phosphoric Acid or its equivalent in Phosphate of Lime. (The highest grades range from 17 to 20 per cent. of Phosphoric Acid; medium grades 14 to 16 per cent.; and low grades from 10 to 12 per cent. of Phosphoric Acid.)

Purified Guano to be described by that name, and to be sold by analysis stating the minimum percentages of Phosphates and Ammonia.

Sulphate of Ammonia to be guaranteed "PURE," and to contain not less than 24 per cent. of Ammonia.

Nitrate of Soda to be guaranteed "PURE," and to contain 85 per cent. of Nitrate of Soda.

Sulphate of Potash to be guaranteed to contain 23 per cent. of Sulphate of Potash.

All Fertilisers to be delivered in good and suitable condition for sowing.

FEEDING STUFFS.

Linseed Cake, Cotton Cake (Decorticated and Undecorticated), and **Rape Cake** (for feeding purposes) to be pure, i.e., prepared only from the one kind of seed from which their name is derived, and to be in sound condition. The percentages of oil and albuminoids guaranteed must also be stated. The Report of the Consulting Chemist of the Royal Agricultural Society of England to be conclusive as to the "purity" or otherwise of any feeding stuffs.

Mixed Feeding Cakes, Meals, &c. to be sold on a guaranteed analysis, giving the percentages of oil and albuminoids, to be sound in condition, and to contain nothing of an injurious nature, or ingredients that are worthless for feeding purposes.

ORDER FORM (SAMPLE)
FOR FERTILISERS OR FEEDING STUFFS.



To _____
Address _____

Date _____

Please supply me for Delivery _____

Cwt. of _____

At _____ per ton.

GUARANTEED to be in accordance with the conditions specified on the back hereof, relating to this article, and subject to the analysis and report of the Consulting Chemist of the Royal Agricultural Society of England.

(Signature of Member)

NOTE—Copies of this Form will be forwarded to Members on application to the Secretary. [P.T.O.]

CONDITIONS OF PURCHASE AND SALE.

FERTILISERS.

Raw Bones, Bone-meal, or Bone-dust to be guaranteed "PURE," and to contain not less than 45 per cent. of Phosphate of Lime, and not less than 4 per cent. of Ammonia.

Steamed, or "Degelatinised" Bones to be guaranteed "PURE," and to contain not less than 55 per cent. of Phosphate of Lime, and not less than 1 per cent. of Ammonia.

Mineral Superphosphate of Lime to be guaranteed to contain a certain percentage of "Soluble Phosphate." [From 25 to 28 per cent. of Soluble Phosphate is an ordinarily good quality.]

Dissolved Bones to be guaranteed to be "made from raw bone and acid only," and to be sold as containing stated minimum percentages of Soluble Phosphate, Insoluble Phosphates, and Ammonia.

Compound Artificial Manures, Bone Manures, Bone Compounds, &c. to be sold by analysis stating the minimum percentages of Soluble Phosphate, Insoluble Phosphates, and Ammonia contained.

Basic Slag to be guaranteed to be sufficiently finely ground that 80 to 90 per cent. passes through a sieve having 10,000 meshes to the square inch, and to contain a certain percentage of Phosphoric Acid or its equivalent in Phosphate of Lime. [The highest grades range from 17 to 20 per cent. of Phosphoric Acid; medium grades 14 to 16 per cent.; and low grades from 10 to 12 per cent. of Phosphoric Acid.]

Peruvian Guano to be described by that name, and to be sold by analysis stating the minimum percentages of Phosphates and Ammonia.

Sulphate of Ammonia to be guaranteed "PURE," and to contain not less than 24 per cent. of Ammonia.

Nitrate of Soda to be guaranteed "PURE," and to contain 95 per cent. Nitrate of Soda.

Kainit to be guaranteed to contain 23 per cent. of Sulphate of Potash.

All Fertilisers to be delivered in good and suitable condition for sowing.

FEEDING STUFFS.

Linseed cake, Cotton cake (Decorticated and Undecorticated), and Rape cake (for feeding purposes) to be pure, *i.e.*, prepared *only* from the one kind of seed from which their name is derived; and to be in sound condition. The percentages of oil and albuminoids guaranteed must also be stated. The Report of the Consulting Chemist of the Royal Agricultural Society of England to be conclusive as to the "purity" or otherwise of any feeding stuffs.

Mixed Feeding-cakes, Meals, &c., to be sold on a guaranteed analysis, giving the percentages of oil and albuminoids, to be in sound condition, and to contain nothing of an injurious nature, or ingredients that are worthless for feeding purposes.

MEMBERS' BOTANICAL PRIVILEGES.

THE COUNCIL HAVE FILED THE FOLLOWING

RATES OF CHARGES FOR THE EXAMINATION OF PLANTS AND SEEDS

BY THE SOCIETY'S BOTANIST.

Analyses are given, on the understanding that they are required for the individual and sole benefit of the member applying for them, and must not be used for other persons or for commercial purposes. The analyses and Reports may not be communicated to the vendor except in cases of dispute.

The charge for examination must be paid at the time of application, and the carriage of all parcels must be prepaid. When, however, *bonâ fide* inquiries require no special investigation the fees will be returned with the reply.

- 1.—Report on the purity and germinating capacity of samples of agricultural seeds, with a statement as to the nature and amount of the impurities or adulterants present . . . 1s.
- 2.—Report on the constitution of mixtures of grass seeds and an opinion as to their suitability for temporary leys, permanent pastures, &c. 1s.
- 3.—Identification of weeds and poisonous plants with suggestions for their eradication 1s.
- 4.—Report on the fungoid diseases affecting farm crops, with an account of the methods suitable for their treatment, where known 1s.
- 5.—Report on the natural herbage of a district as a guide to the formation of permanent pastures 1s.
- 6.—Report on the suitability or otherwise of the different varieties of the chief farm crops for local conditions (where the information is available), stating their average cropping capacity as compared with other varieties, their quality, power of resistance to various diseases, and general purity to type 1s.
- 7.—Reports on any other matters of a botanical nature of interest to agriculturists 1s.

PURCHASE OF SEEDS.

The purchaser should obtain from the vendor, by invoice or other writing, the proper designation of the seeds he buys, with a guarantee of the percentage of purity and germination, and of its freedom from ergot, and, in the case of clover, from the seeds of dodder.

Copies of the "Order Form and Conditions of Purchase and Sale of Seeds" (see page ix) may be obtained by Members on application to the Secretary, at 16 Bedford Square, London, W.C.

NUMBERS: BOTANICAL PARCELS (continued).

THE SAMPLING OF SEEDS.

The samples here should be taken to secure a fair and honest sample. They should be taken from the bulk delivered to the purchaser, and not from the sample sent by the vendor.

When legal evidence is required, the sample should be taken from the bulk and placed in a sealed bag in the presence of a witness. Care should be taken that the sample and bulk be not tampered with after delivery, or mixed or brought in contact with any other sample or bulk.

At least one ounce of grass and other small seeds should be sent, and two ounces of cereals and the larger seeds. When the bulk is obviously impure, the sample should be at least double the amount specified. Grass seeds should be sent at least four weeks, and seeds of clover and cereals two weeks before they are to be used.

The exact name under which the sample has been sold and analysed should accompany it.

REPORTING THE RESULTS.

The Report will be made on a schedule in which the nature and amount of impurities will be stated, and the number of days each sample has been under test, with the percentage of the seeds which have germinated.

"Hard" clover seeds, though not germinating within the time stated, will be considered good seeds, and their percentage separately stated.

The impurities in the sample, including the chaff of the species tested, will be specified in the schedule, and only the percentage of the pure seed of that species will be reported upon; but the REAL VALUE of the sample will be stated. The Real Value is the combined percentages of purity and germination, and is obtained by multiplying these percentages and dividing by 100; thus in a sample of Meadow Fescue having 88 per cent. purity and 95 per cent. germination, 88 multiplied by 95 gives 8,360, and this divided by 100 gives 83.6, the Real Value.

SELECTING SPECIMENS OF PLANTS.

When a specimen is sent for determination, the whole plant should be taken up and the earth shaken from the roots. If possible, the plants must be in flower or fruit. They should be packed in a light box, or in a firm paper parcel.

Specimens of diseased plants or of parasites should be forwarded as fresh as possible. They should be placed in a bottle or packed in kieselguhr or oil-silk.

All specimens should be accompanied with a letter specifying the nature of the information required, and stating any local circumstances (soil, situation, &c.) which, in the opinion of the sender, would be likely to throw light on the inquiry.

PARCELS OR LETTERS CONTAINING SEEDS OR PLANTS FOR EXAMINATION MUST BE ADDRESSED (CARRIAGE OR POSTAGE PREPAID) TO—

**PROFESSOR R. H. BIFFEN, F.R.S.,
School of Agriculture, Cambridge.**

ORDER.

Quantity		
.....	Cocksfoot	germinating 90 per cent.
.....	Meadow Fescue	95 per cent.
.....	Tall Fescue	90 per cent.
.....	Meadow Foxtail	70 per cent.
.....	Timothy	95 per cent.
.....	Rough Stalked Meadow Grass	80 per cent.
.....	Smooth Stalked Meadow Grass	70 per cent.
.....	Perennial Ryegrass	85 per cent.
.....	Italian Ryegrass	95 per cent.
.....	Red Clover	98 per cent.
.....	Alsike	98 per cent.
.....	White Clover	98 per cent.
.....	Trefoil	98 per cent.
.....	Yarrow	80 per cent.
	Variety.	
.....	.....Wheat	98 per cent.
.....	.....Barley	98 per cent.
.....	.....Oats	98 per cent.
.....	.....Turnips	98 per cent.
.....	.....Swede Turnips	98 per cent.
.....	.....Cabbage	98 per cent.
.....	.....Mangel Wurzel	140 per cent.
.....	.....Rape	98 per cent.
.....	.....Mustard	98 per cent.
.....	.....Thousand Head	98 per cent.

Seeds
included
being
germinable
as
Seeds.

Signature.....

MEMBERS' ZOOLOGICAL PRIVILEGES.

The Council have fixed the charge of 1s. for information to be supplied by the Society's Zoologist, respecting any injurious (animal, quadruped, bird, insect, worm, &c.) pests.

(1) FARM CROPS.

All the ordinary farm crops are subject to numerous pests, some attacking the roots, some the leaves, others the stem or the blossom. The first necessity is the accurate identification of the pest in any case, for a knowledge of its life-history often suggests a method of dealing with it.

(2) FRUIT TREES.

There are a great number of orchard and bush-fruit pests. Some (codlin moth, pear-midge, &c.) attack the fruit; others (red-spider, aphid, caterpillars, &c.) the leaves; others (woolly aphid, boring beetles, &c.) the stem. Information will be given as to the identity of any pest and the best way of combating it.

(3) FOREST TREES.

Advice will be given with regard to the treatment of forest-tree pests, in plantations, nursery gardens, or ornamental grounds. Such pests may attack the trunks (beech-scale, boring insects, &c.), the leaves (caterpillars aphid, &c.), or the roots (cockchafer grubs, &c., in young plantations).

(4) DOMESTICATED ANIMALS.

Animal parasites, whether external or internal, may be sent for identification and advice. They include worms, fly-maggots, ticks, lice, &c., and many well-known diseases (warbles, gapes, &c.) are due to them.

Diseases of animals due to other causes should be referred to the Veterinary Department.

N.B.—It is very important that specimens should reach the Zoologist fresh and in good condition. It is often impossible to determine the cause of injury in the case of crushed and shrivelled material. Tin boxes should be used, and some damp blotting-paper inserted to prevent undue drying. In the case of root-pests, the root should be sent with its surrounding soil.

PARCELS OR LETTERS CONTAINING SPECIMENS (CARRIAGE OR POSTAGE PAID) MUST BE ADDRESSED TO—

Mr. CECIL WARBURTON, M.A.,
School of Agriculture, Cambridge.

MEMBERS' VETERINARY PRIVILEGES.

In order to enable Members to obtain the highest possible Veterinary advice when the necessity arises, the following arrangements have been made with the Royal Veterinary College, under which diseased animals may be admitted to the College Infirmary for treatment, and the Professors of the College may be consulted or called upon to investigate cases of disease on a corresponding fee.

I.—ADMISSION OF SICK OR DISEASED ANIMALS TO THE ROYAL VETERINARY COLLEGE.

Members of the Society have all the privileges of subscribers to the Royal Veterinary College, Camden Town, N.W., so far as the admission for treatment of Cattle, Sheep, and Swine is concerned, without being called upon to pay the annual subscription to the College of two guineas. The charges made by the College for keep and treatment are as follows:—Cattle, 10s. 6d., and Sheep and Pigs, 3s. 6d. per week for each animal.

The full privileges of subscribers, including the examination of horses, and the admission of horses and dogs into the College Infirmary for surgical or medical treatment, on payment of the cost of keep, will be accorded to Members of the Society on payment of a subscription to the College of one guinea instead of two guineas per annum.

II.—FEES FOR CONSULTATIONS, ANALYSES, AND EXAMINATIONS AT THE ROYAL VETERINARY COLLEGE.

The following fees are payable by Members of the Society for services performed at the Royal Veterinary College on their behalf in cases where a visit to the locality is not involved:—

	£	s.	d.
Personal consultation with a Veterinary Professor	10	0	
Consultation by letter	10	0	
Post-mortem examination of an animal and report thereon	1	1	0
Chemical Examination of viscera for any specified metallic poison	10	0	
Chemical Examination of viscera for metallic poisons	1	0	0
Chemical Examination of viscera for vegetable poisons	1	0	0
Chemical Examination of viscera complete, for metals and alkaloids	2	0	0

(The above fees do not apply to cases which involve a visit to the locality.)

III.—INVESTIGATION OF OUTBREAKS OF DISEASE AMONG FARM STOCK.

In the event of any obscure outbreak of disease among Cattle, Sheep, or Swine occurring on the farm of any Member of the Society, application should at once be made to the PRINCIPAL of the ROYAL VETERINARY COLLEGE, CAMDEN TOWN, LONDON, N.W.

The Principal will then instruct an officer of the College to inquire into the outbreak and report to him. He will also fix the amount of remuneration to be paid to the Inspector, whose professional fee will in no case exceed two guineas per day, exclusive of the actual cost of travelling and maintenance.

When it appears, on the report of the Inspector selected, that the outbreak was of an important character or of general interest, the cost of investigation will be defrayed by the Royal Veterinary College.

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The above can be obtained at the Society's House, 16 Bedford Square, London, W.C., through any bookseller, or of Mr. JOHN MURRAY, 66a Albemarle Street, W.
Copies of pamphlets sold at not less than One Shilling each are obtainable by Members of the Society at half-price on direct application to the Secretary.

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Elements of Agriculture

A TEXT BOOK

PUBLISHED UNDER THE AUTHORITY OF THE

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

BY W. FLEMING, LL.D.

REVISED AND ENLARGED EDITION.

EDITED BY

J. R. AINSWORTH-DAVIS, M.A. (F.R.S.), (F.R.S.E.),

Principal of the Royal Agricultural College, Cirencester, and Professor of Natural History in the University of Bristol.

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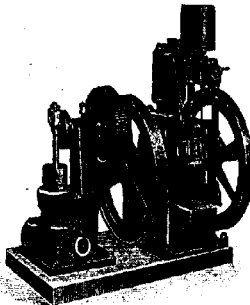
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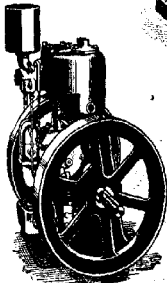
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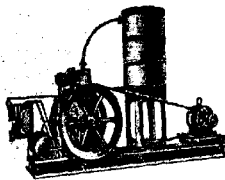
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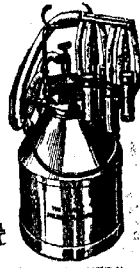
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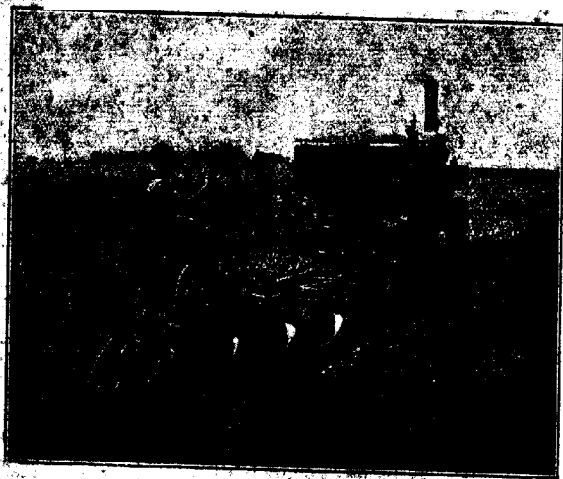


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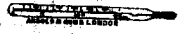
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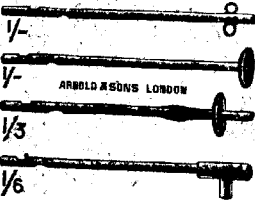
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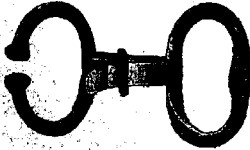
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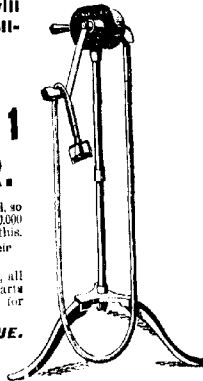
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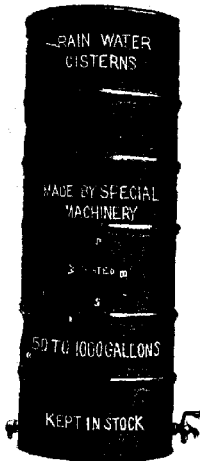
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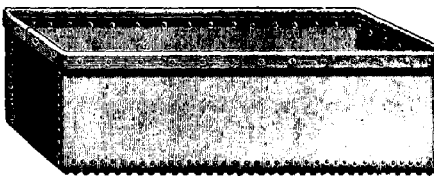


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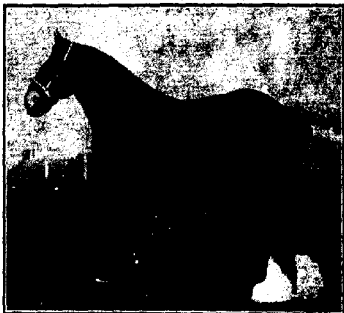
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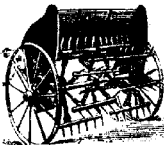
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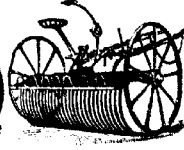
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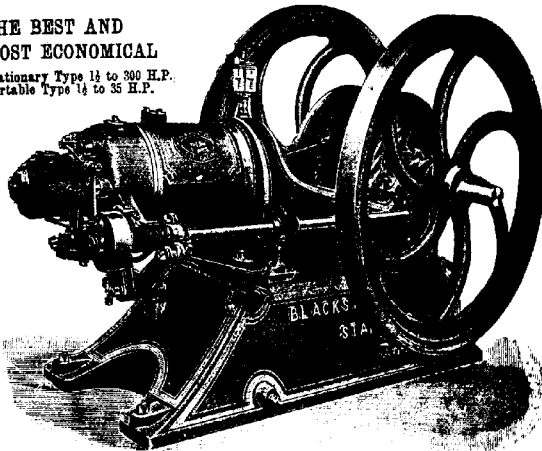
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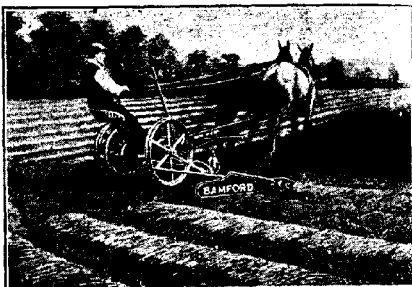
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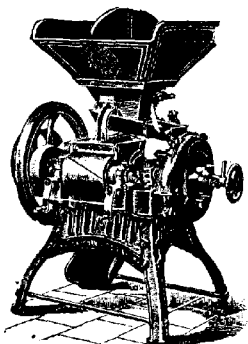
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BRICKENDON PROPHET, 28141. Bay; foaled 1909; Sire, Holker Menestrel II., 22451; Dam, 57776, Midsummer, by Lockinge Forest King, 18867.

BURY SIR KNIGHT, 29191. Bay; foaled 1910; Sire, Bury Antonio, 25022; Dam, 31273, Bury Blue Belle, by King Holt, 15673.

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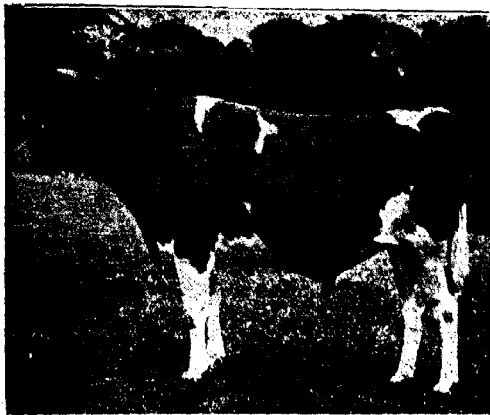
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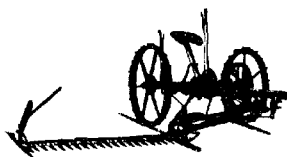
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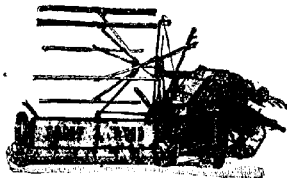


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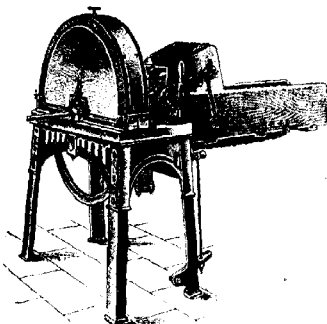
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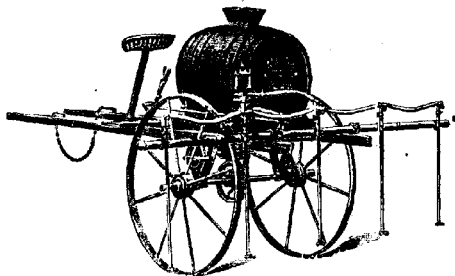
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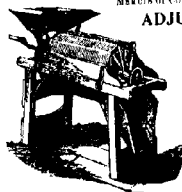
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